

Dynamo - Extra

Big Data Systems

Dr. Rubi Boim

Dynamo - Extra

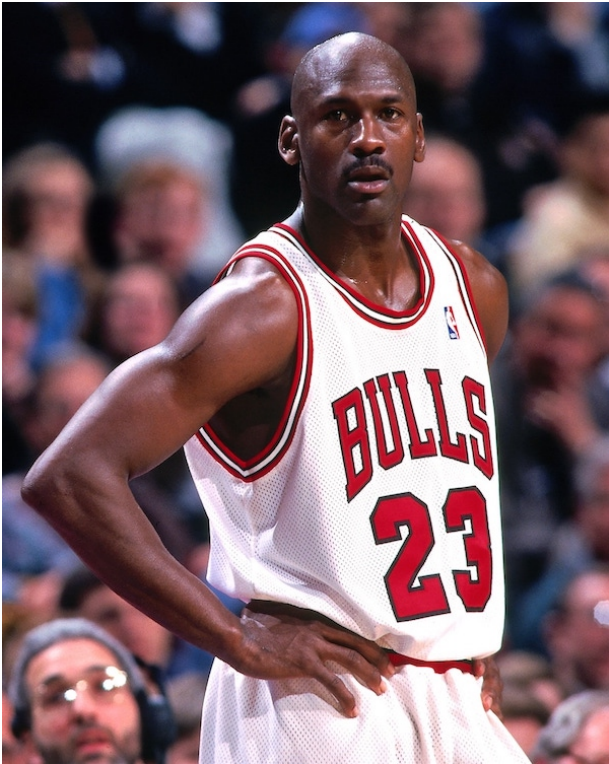
- Deleted item resurface example
- Data versioning - example (paper)

Dynamo - Extra

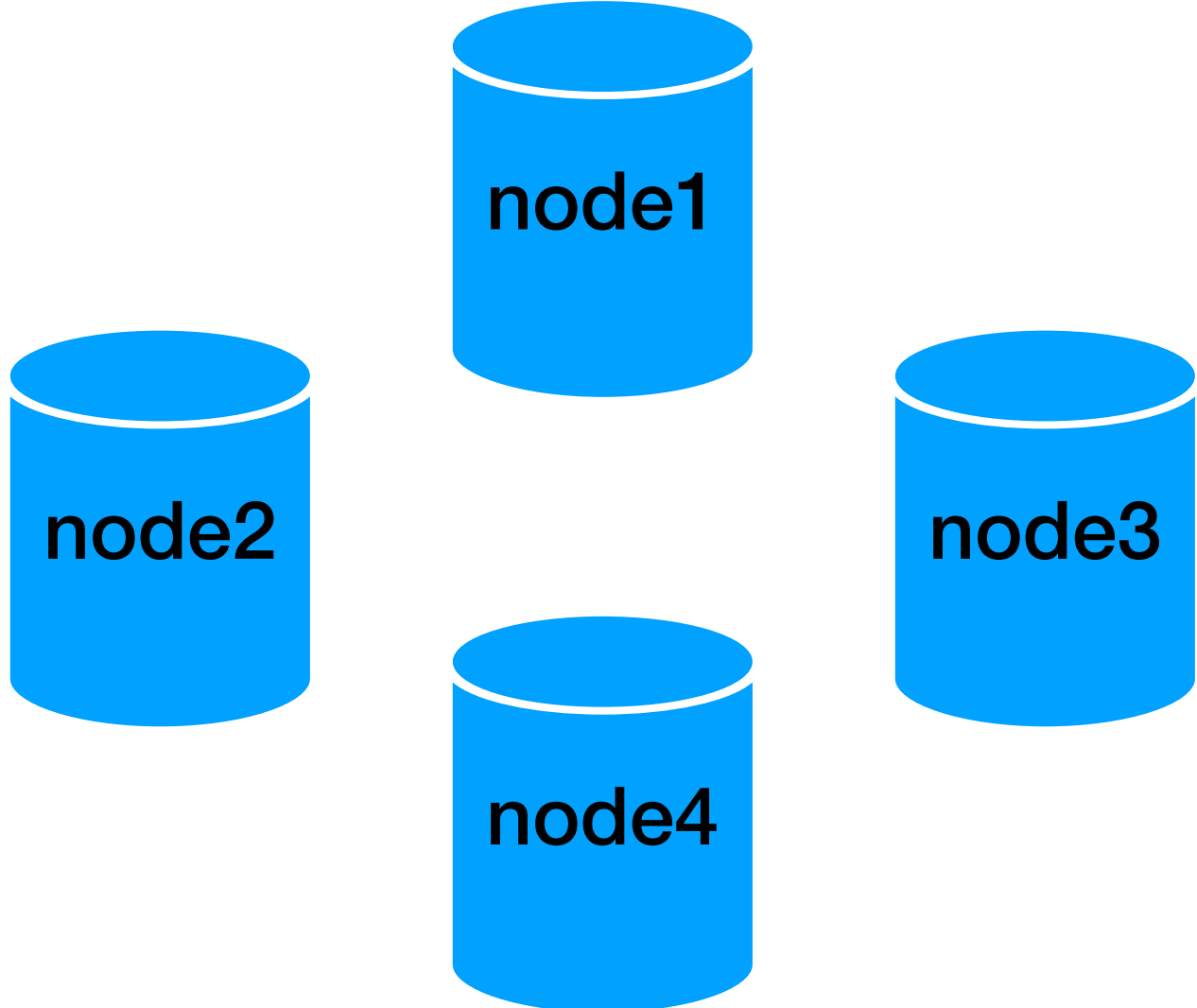
- **Deleted item resurface example**
- Data versioning - example (paper)

Try doing it yourself before you go to next slides

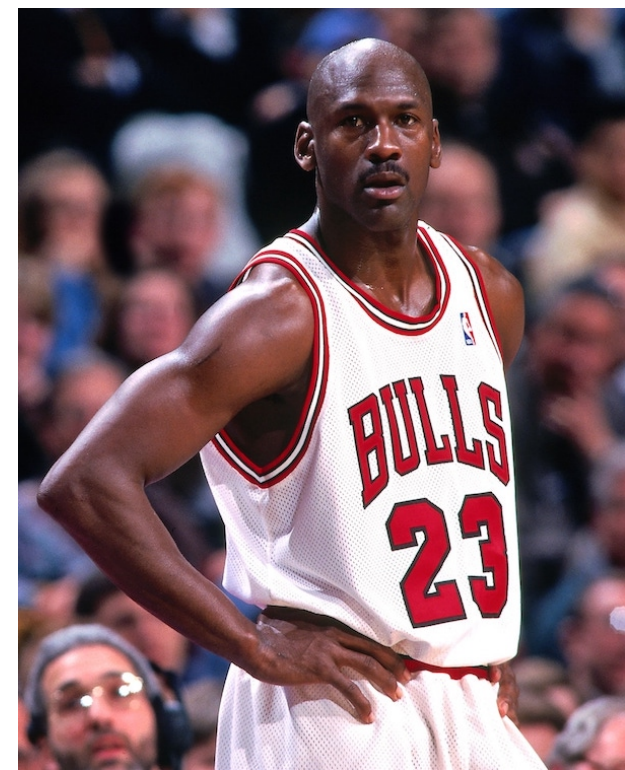
Data versioning - delete resurface



10:00: empty cart



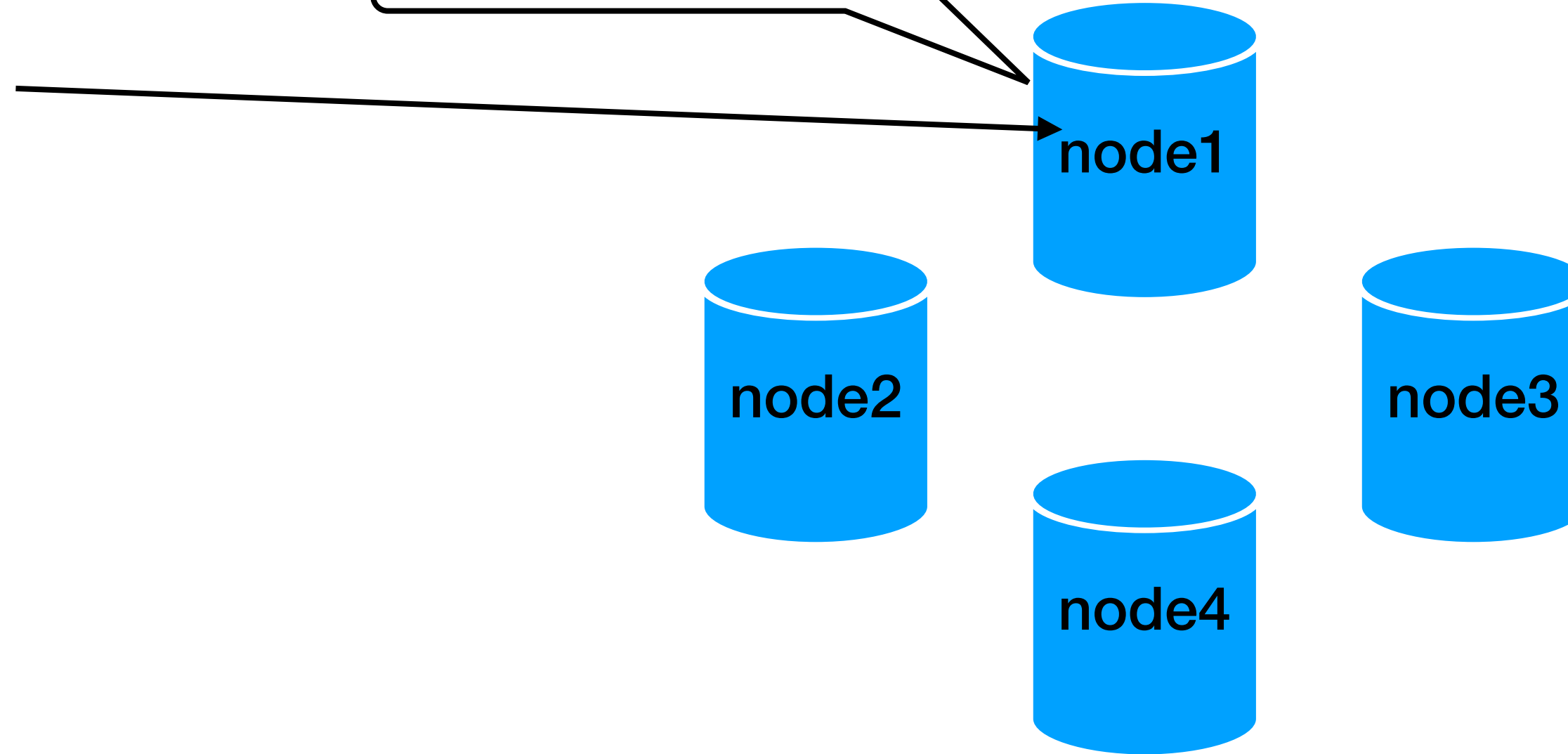
Data versioning - delete resurface



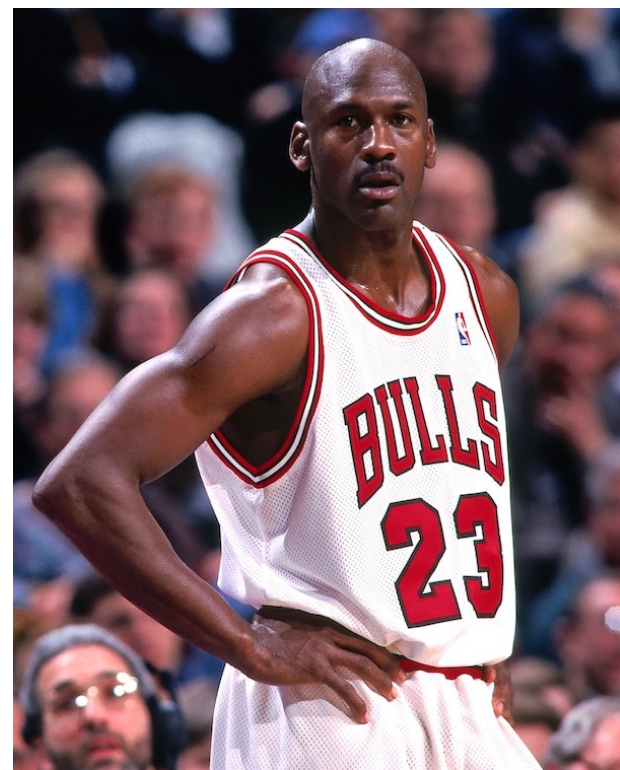
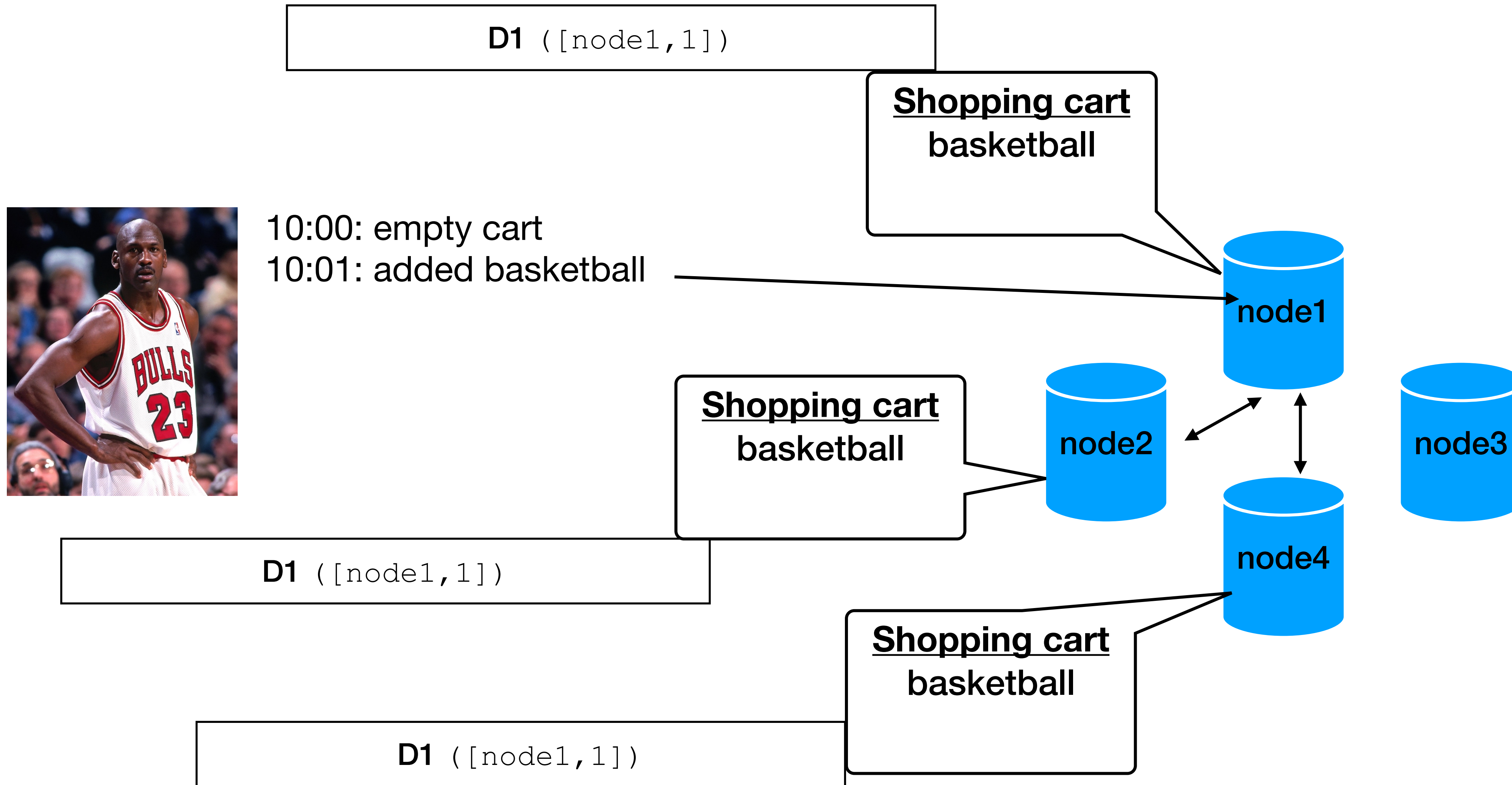
10:00: empty cart
10:01: added basketball

D1 ([node1, 1])

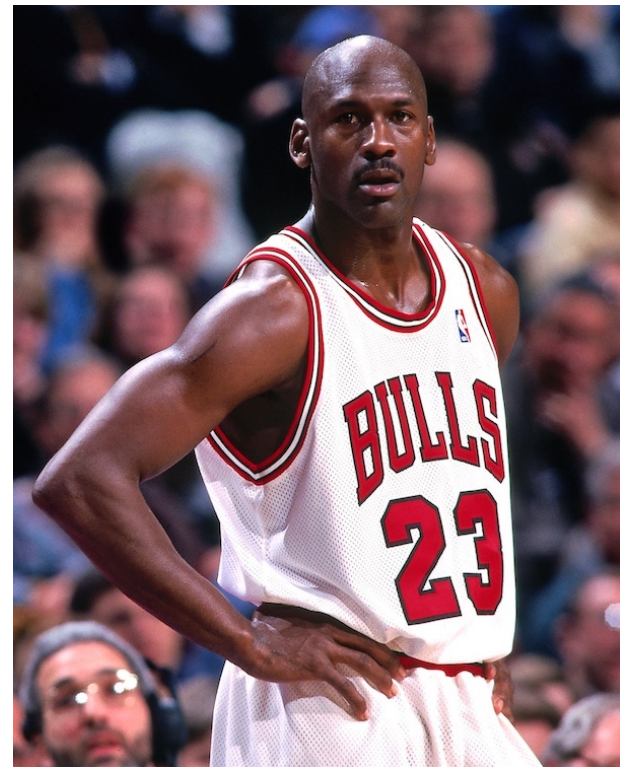
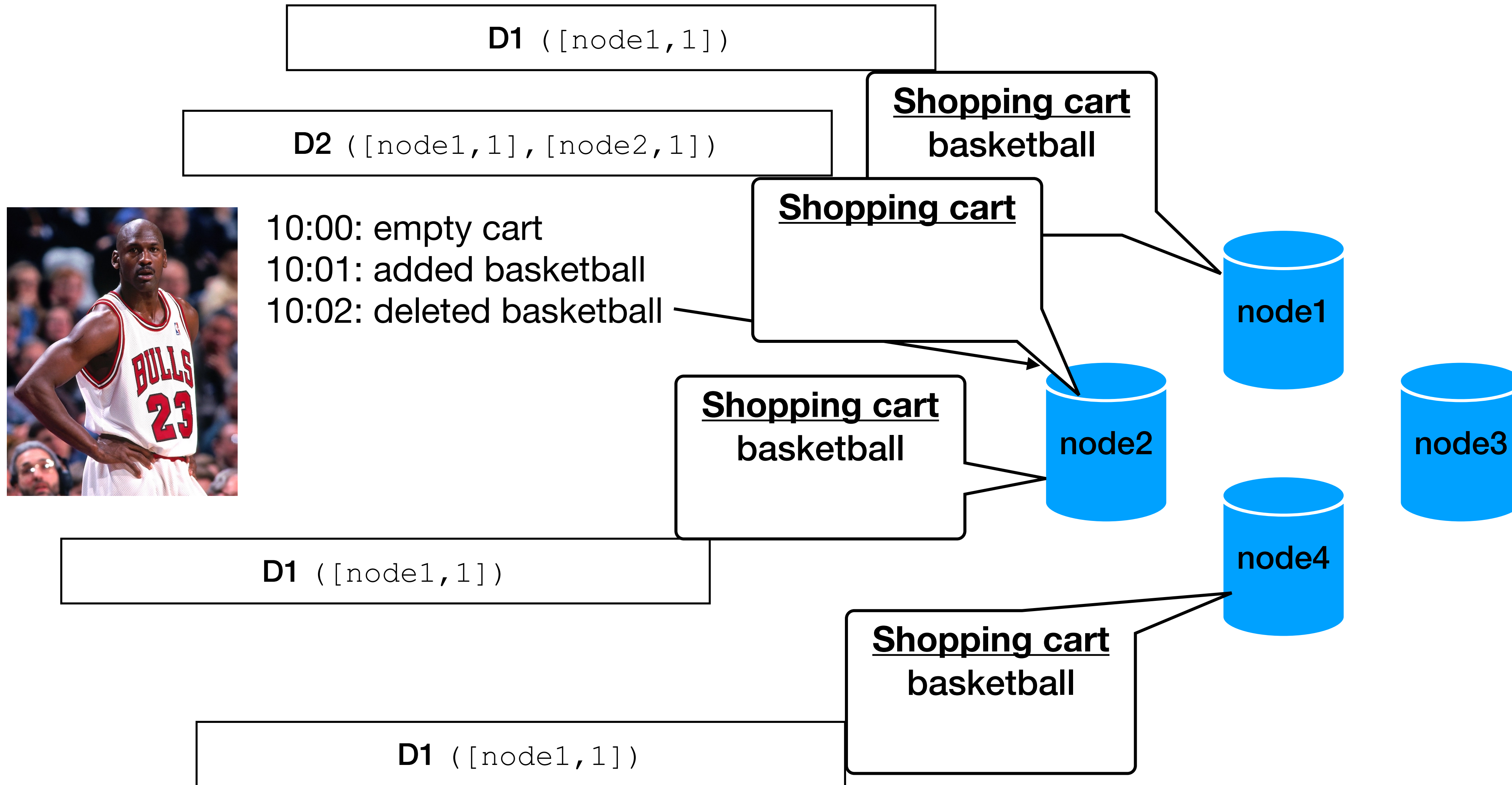
Shopping cart
basketball



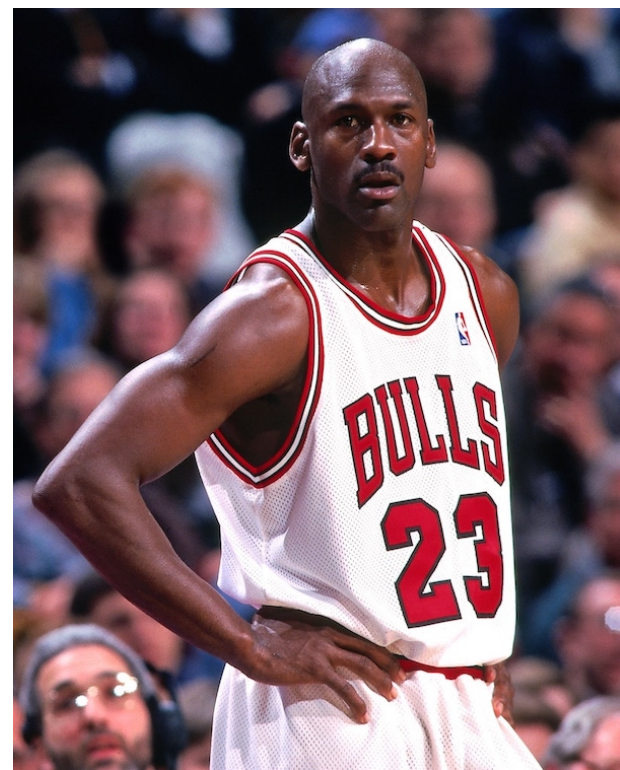
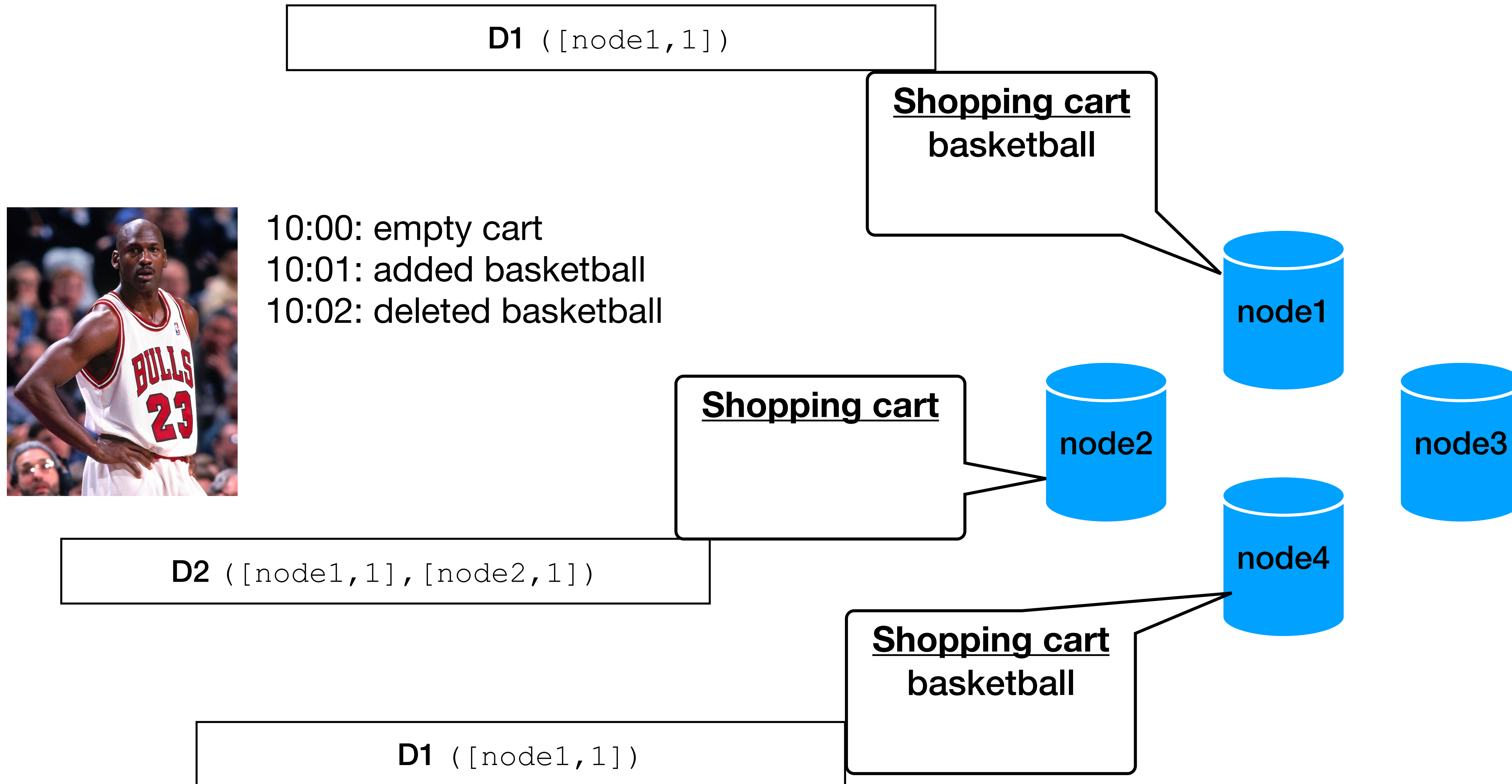
Data versioning - delete resurface



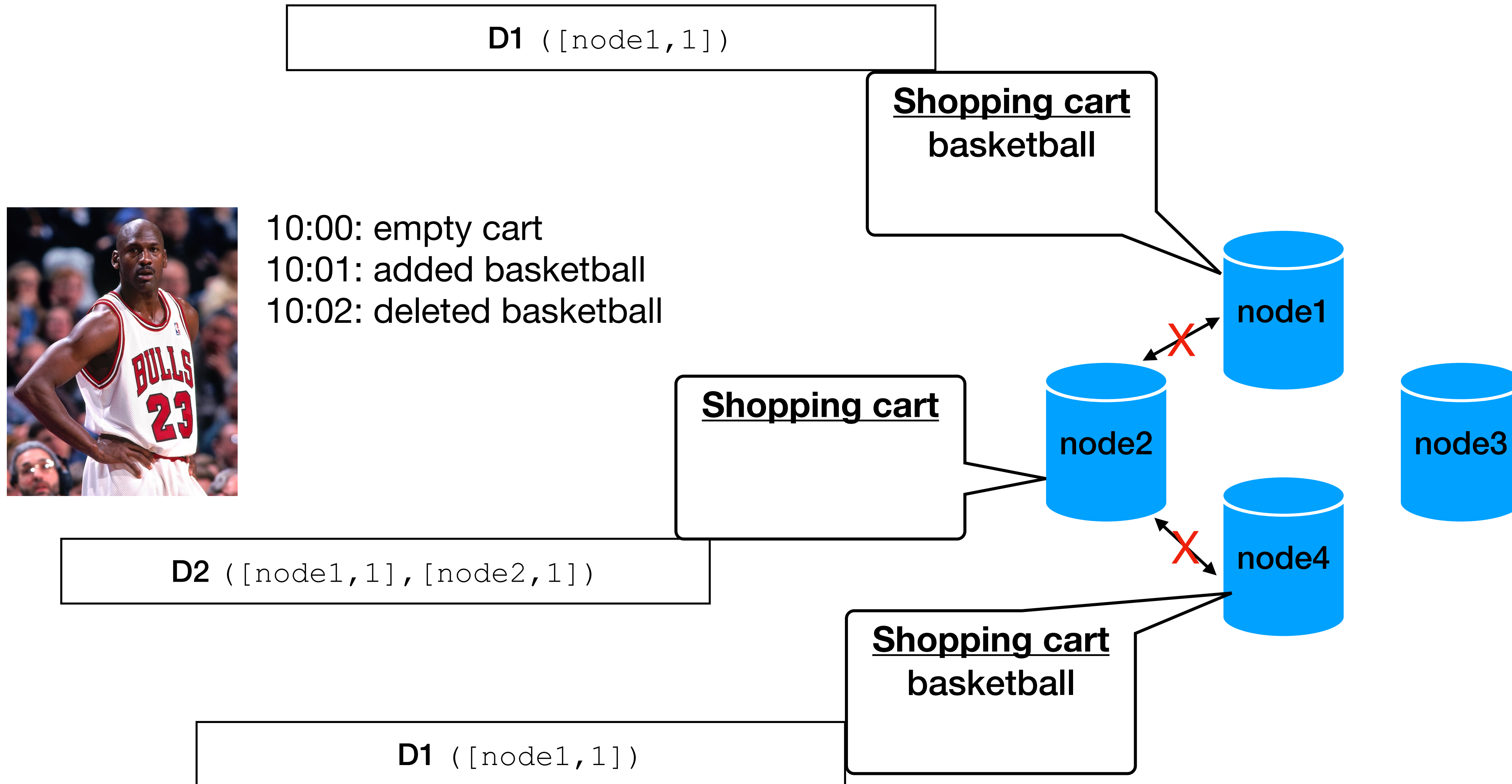
Data versioning - delete resurface



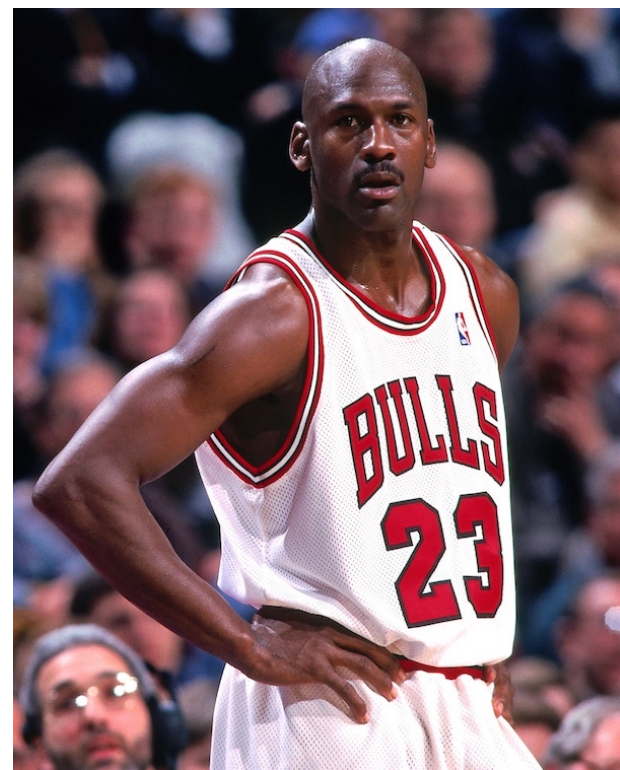
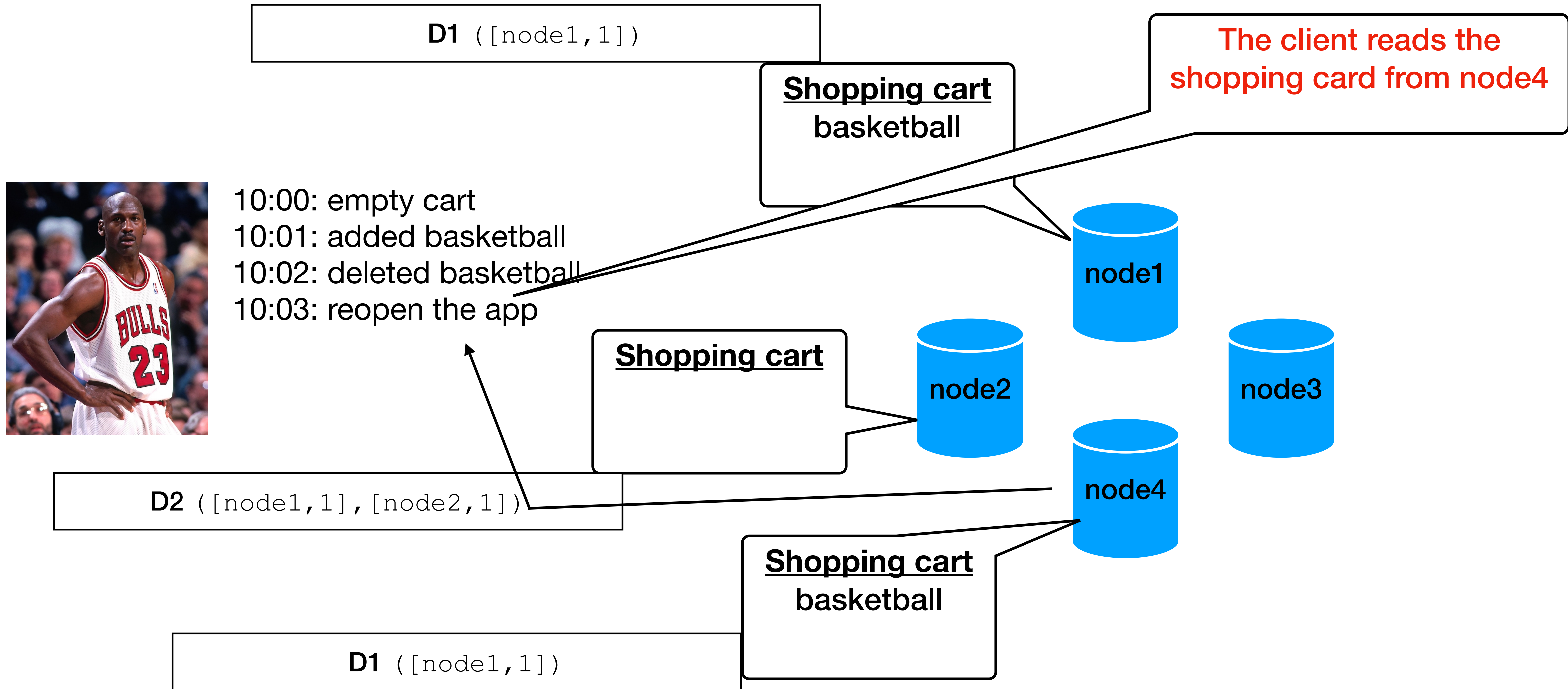
Data versioning - delete resurface



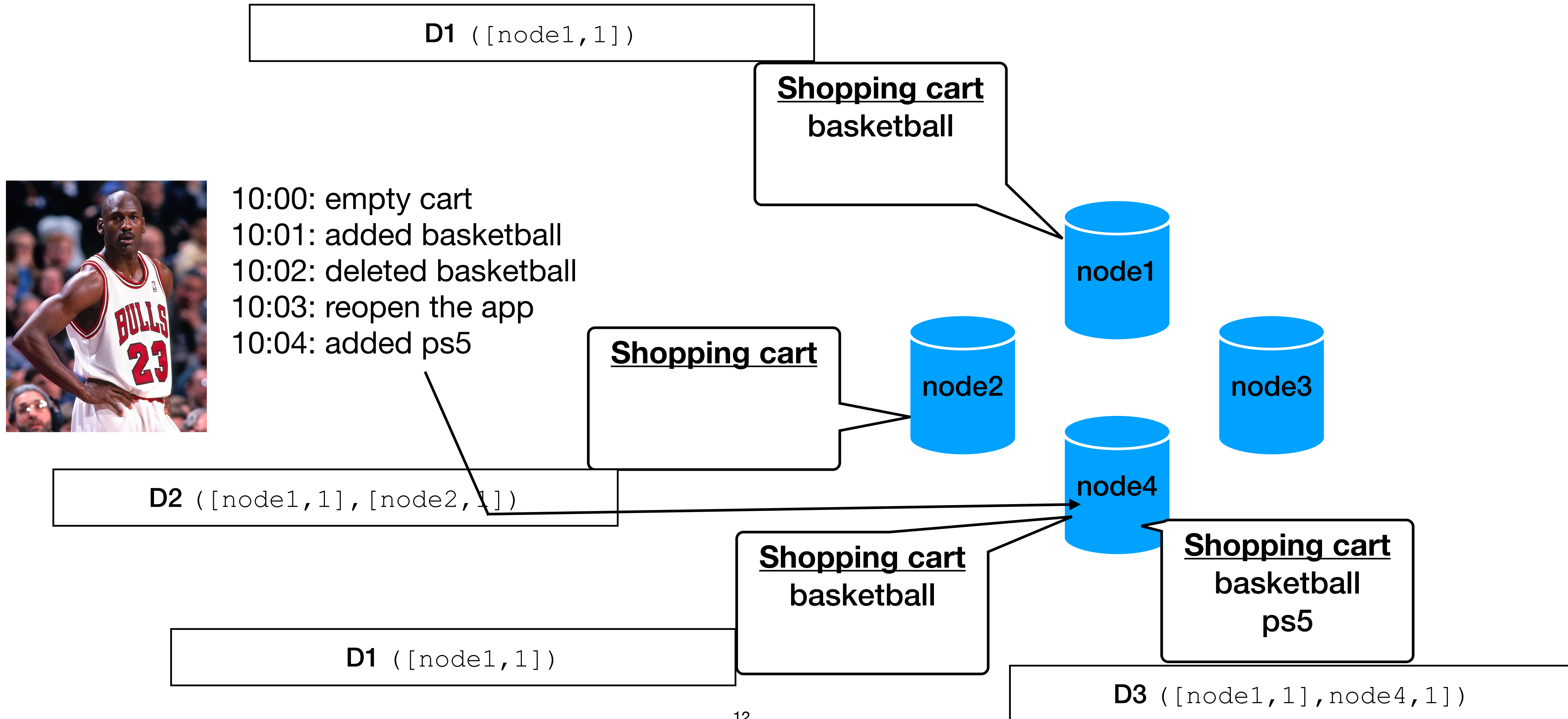
Data versioning - delete resurface



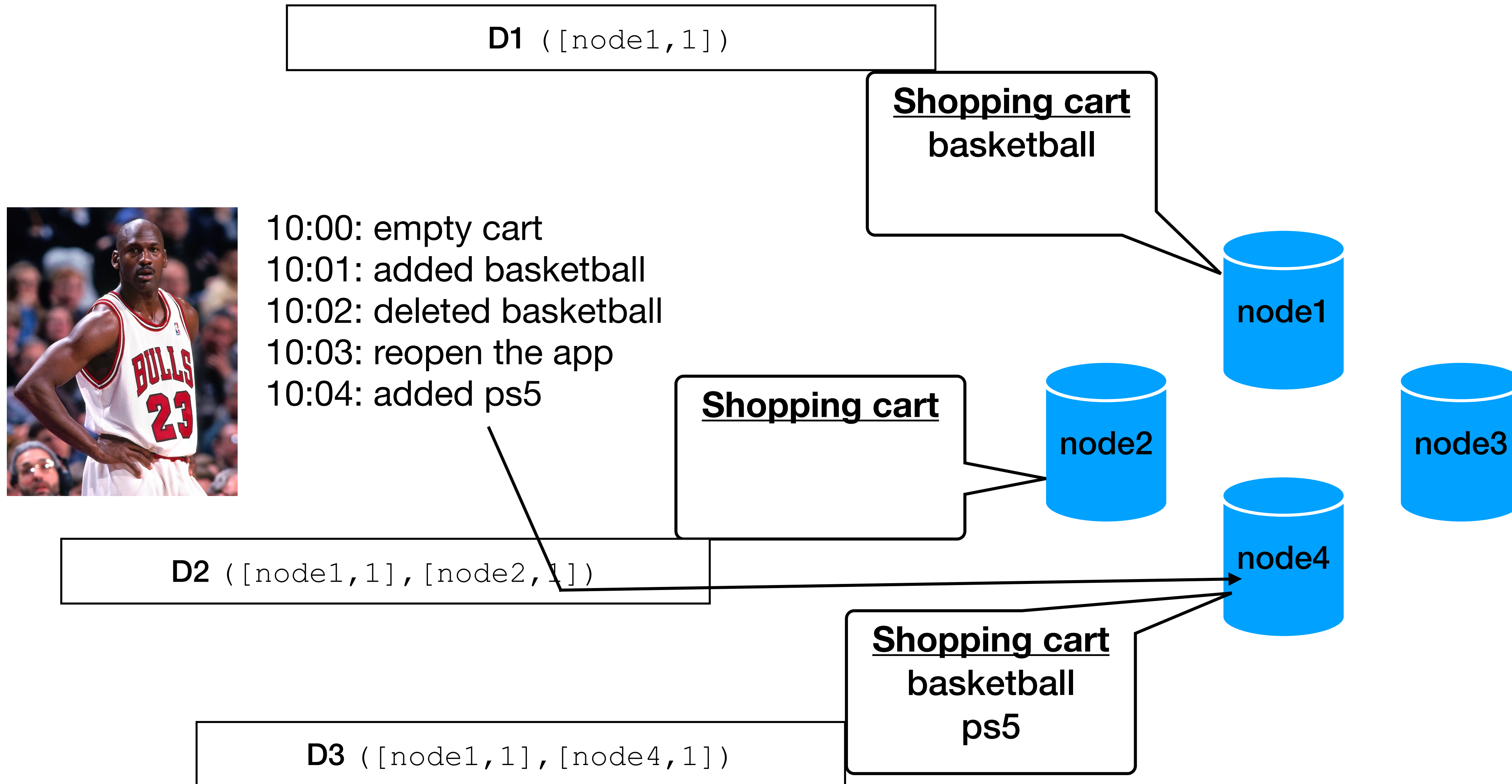
Data versioning - delete resurface



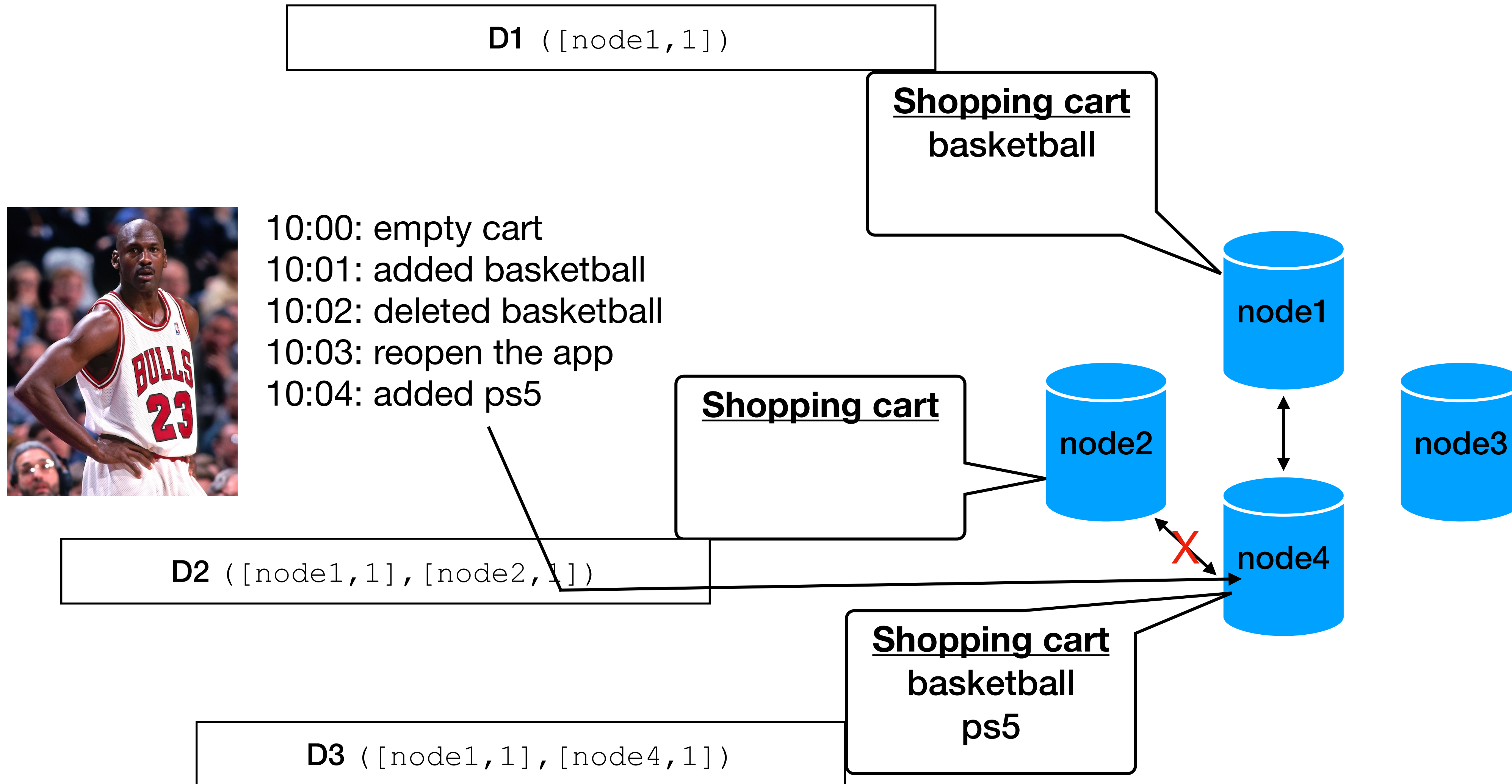
Data versioning - delete resurface



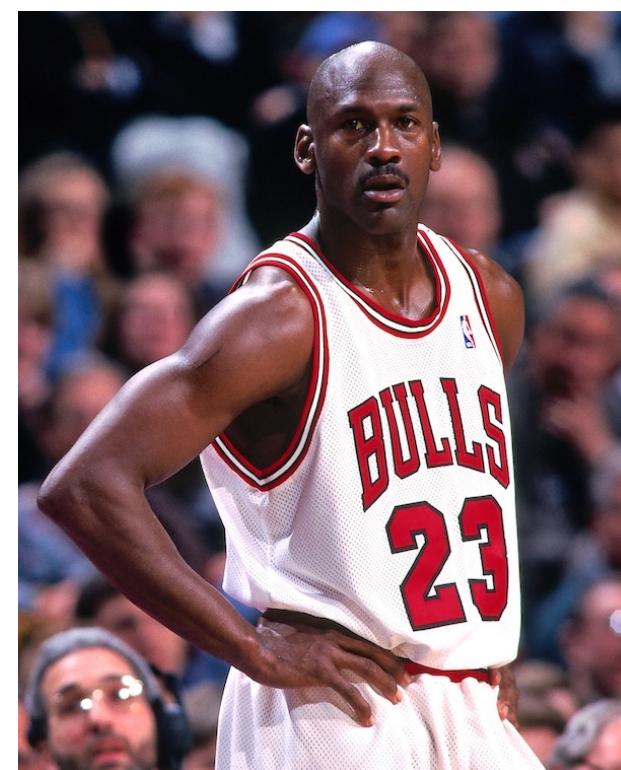
Data versioning - delete resurface



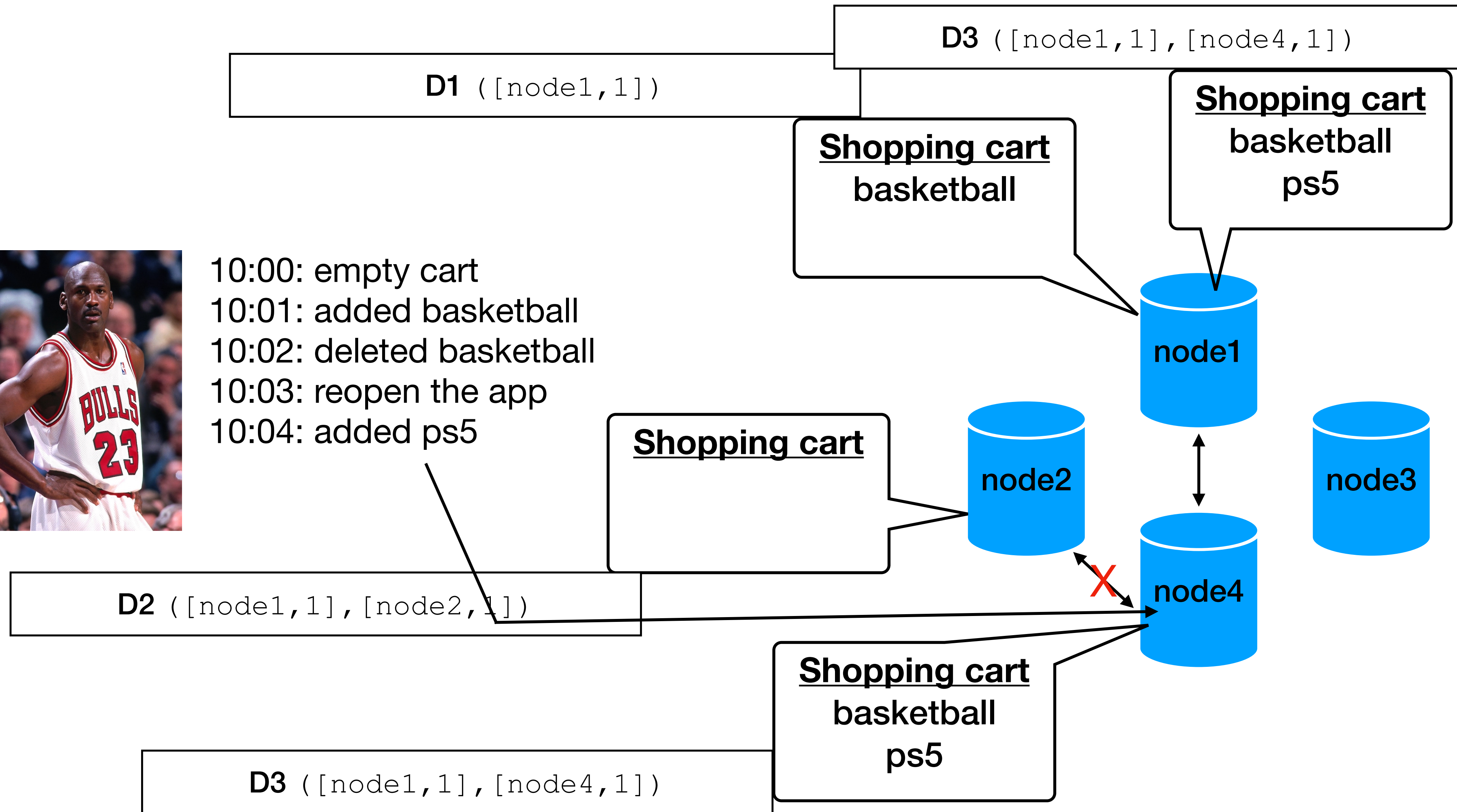
Data versioning - delete resurface



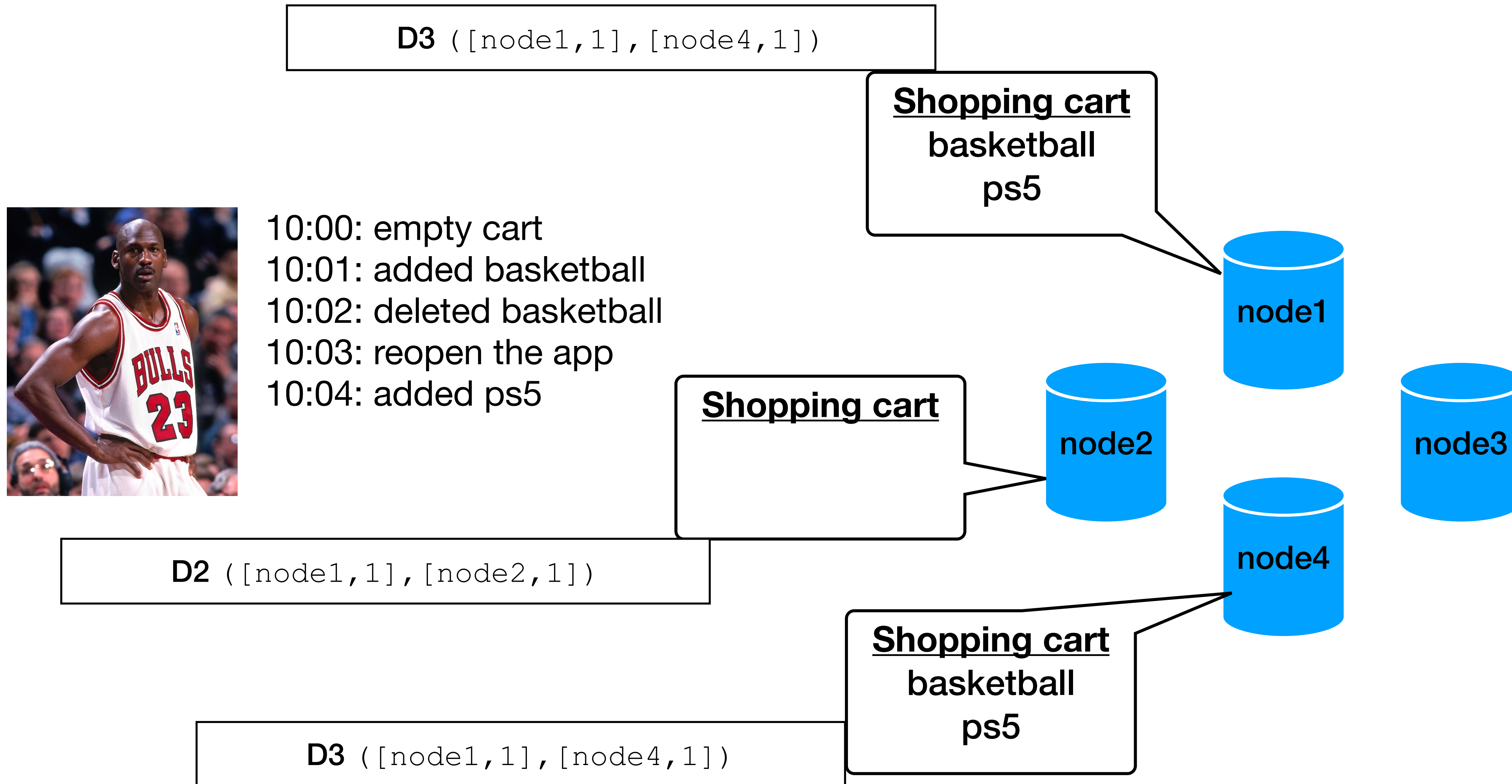
Data versioning - delete resurface



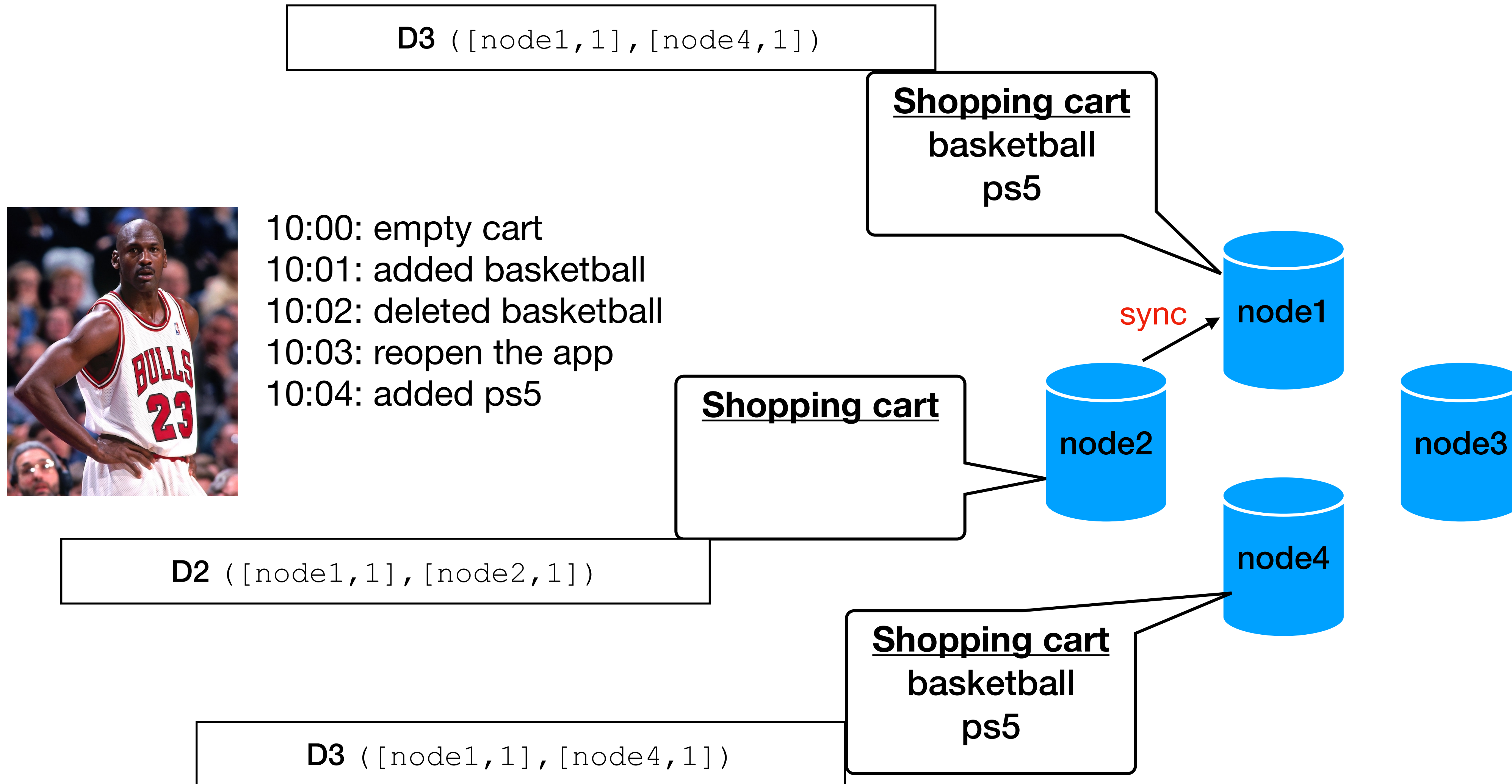
10:00: empty cart
10:01: added basketball
10:02: deleted basketball
10:03: reopen the app
10:04: added ps5



Data versioning - delete resurface



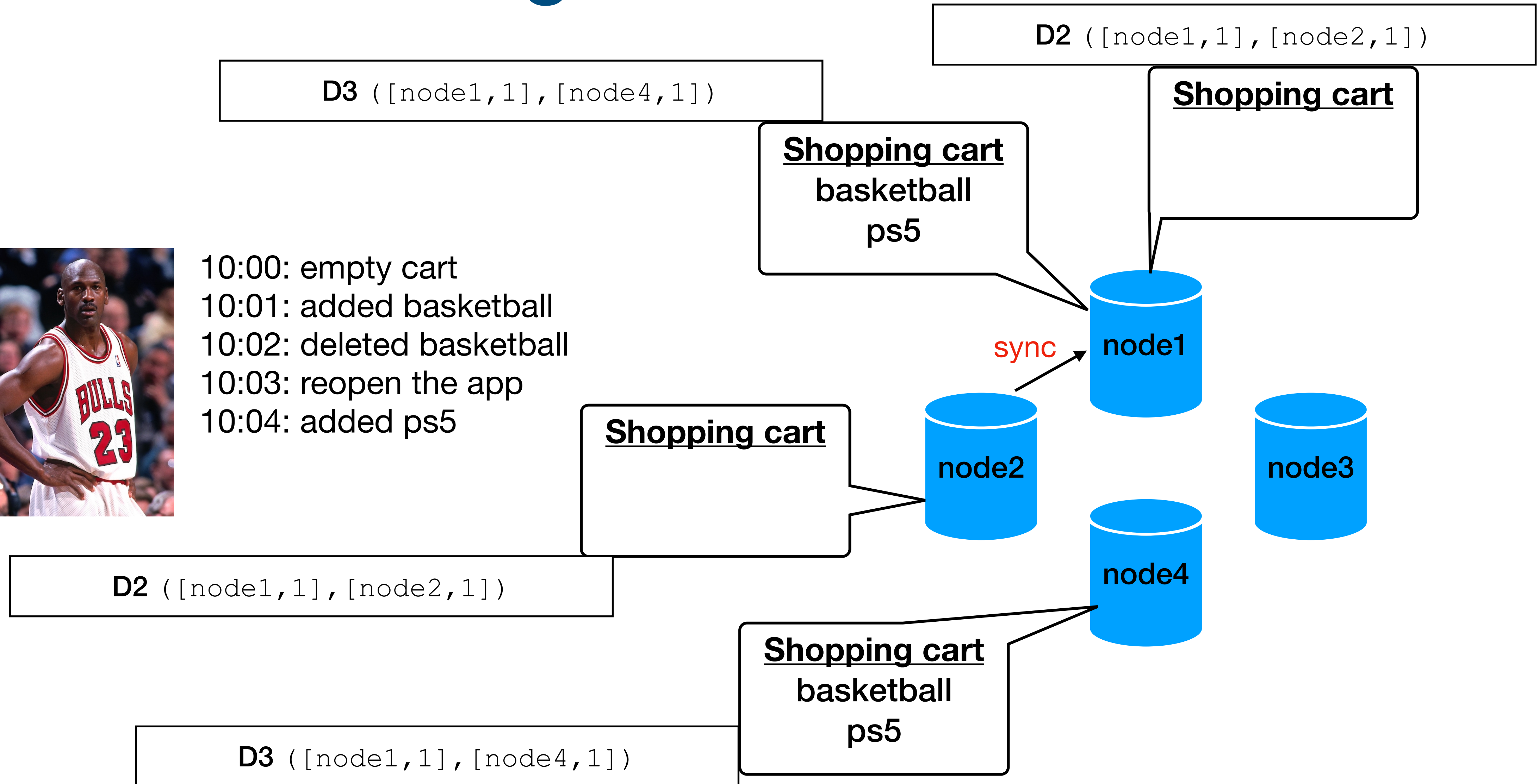
Data versioning - delete resurface



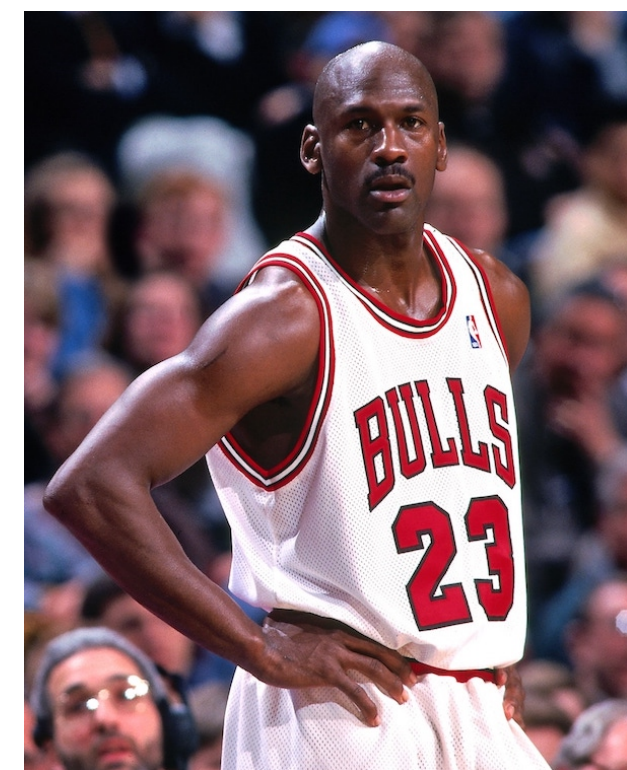
Data versioning - delete resurface



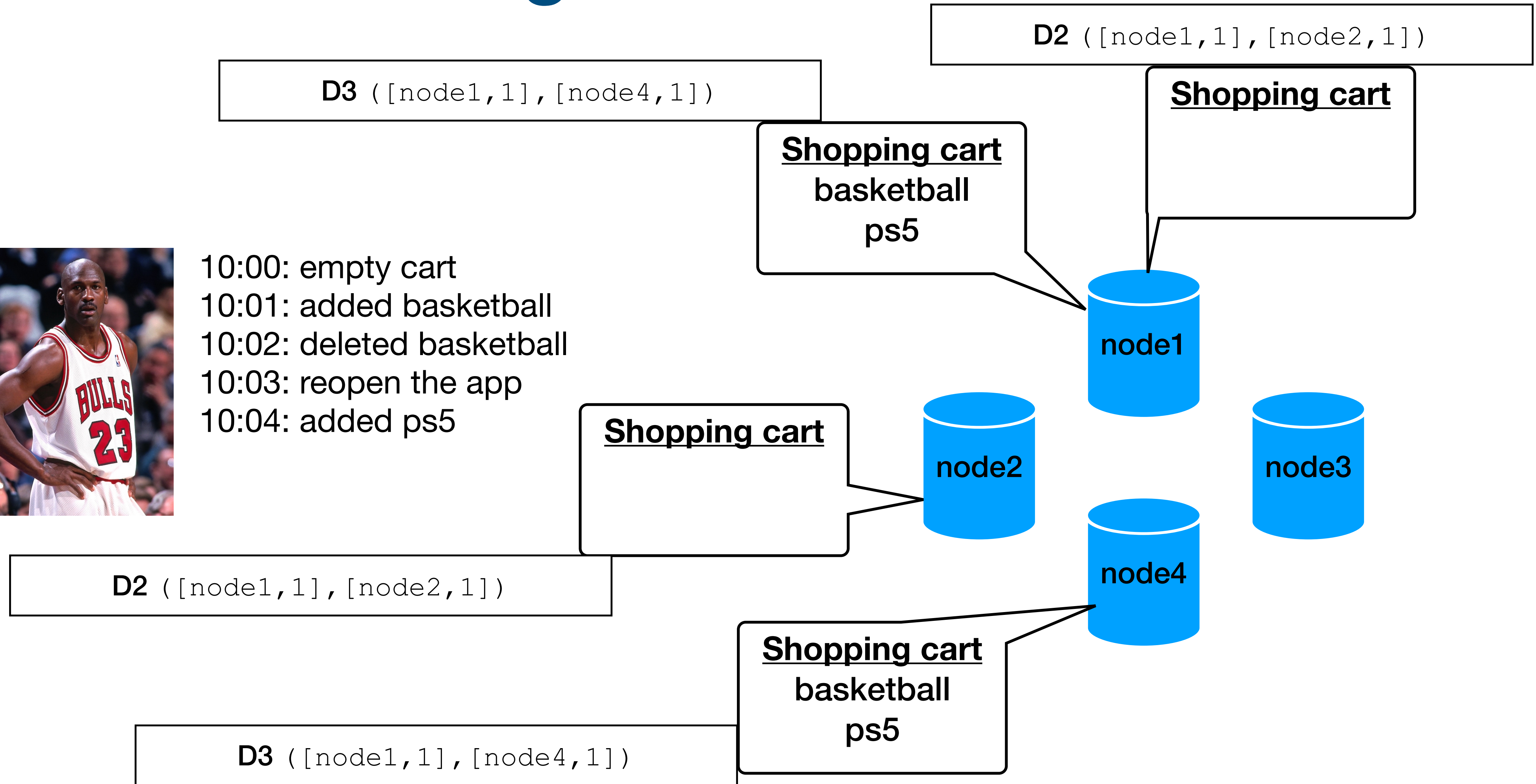
10:00: empty cart
10:01: added basketball
10:02: deleted basketball
10:03: reopen the app
10:04: added ps5



Data versioning - delete resurface



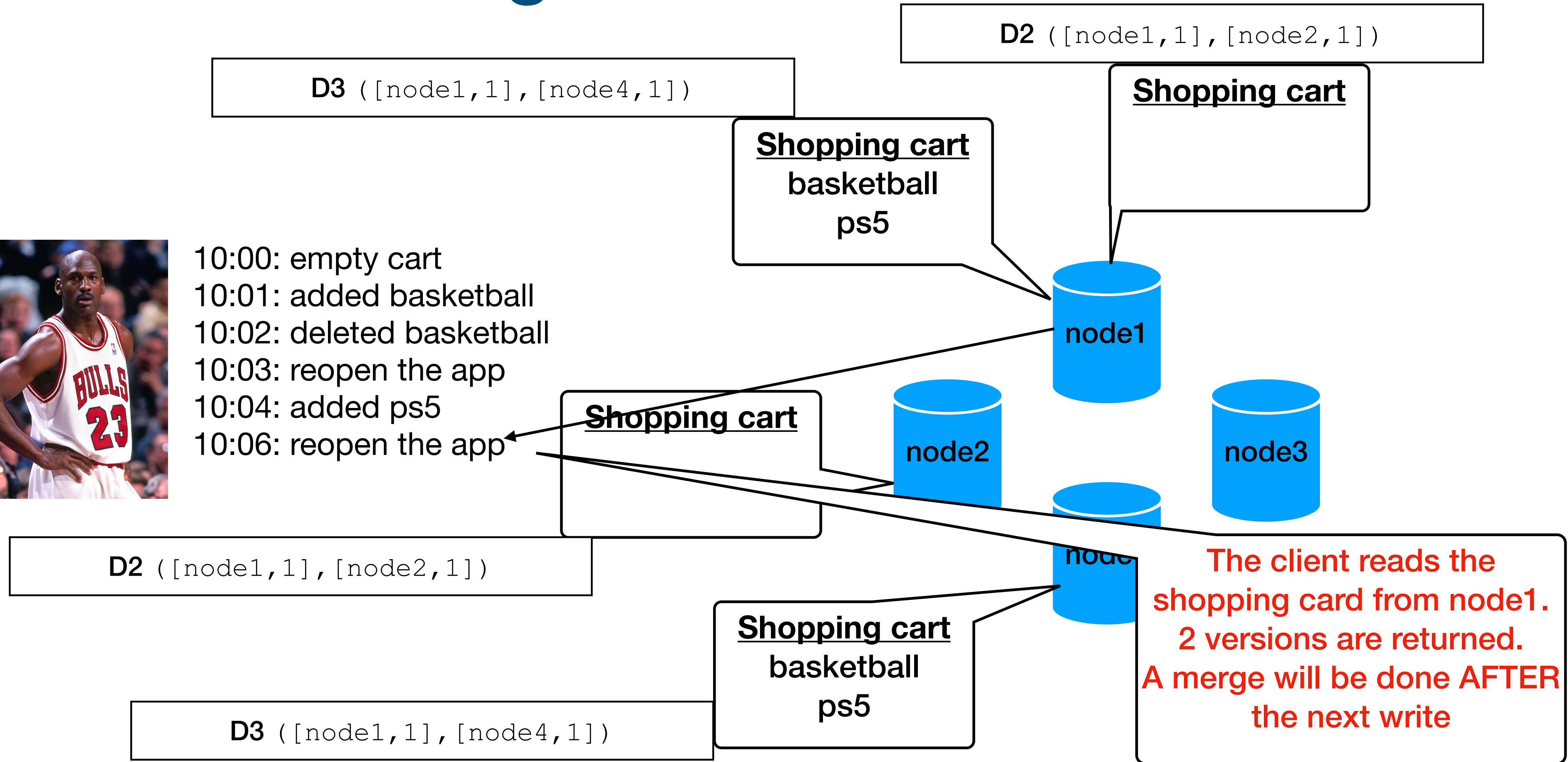
10:00: empty cart
10:01: added basketball
10:02: deleted basketball
10:03: reopen the app
10:04: added ps5



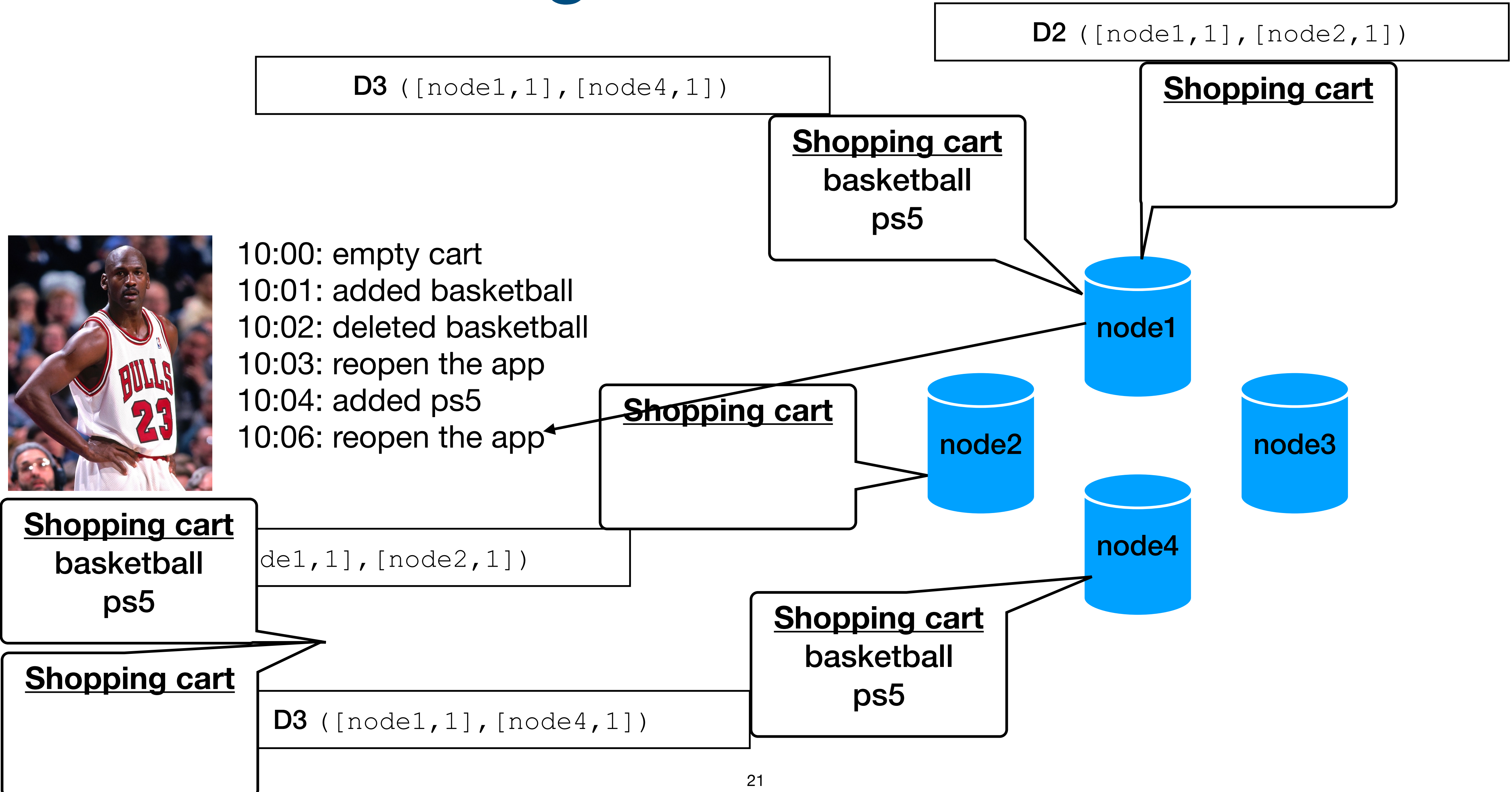
Data versioning - delete resurface



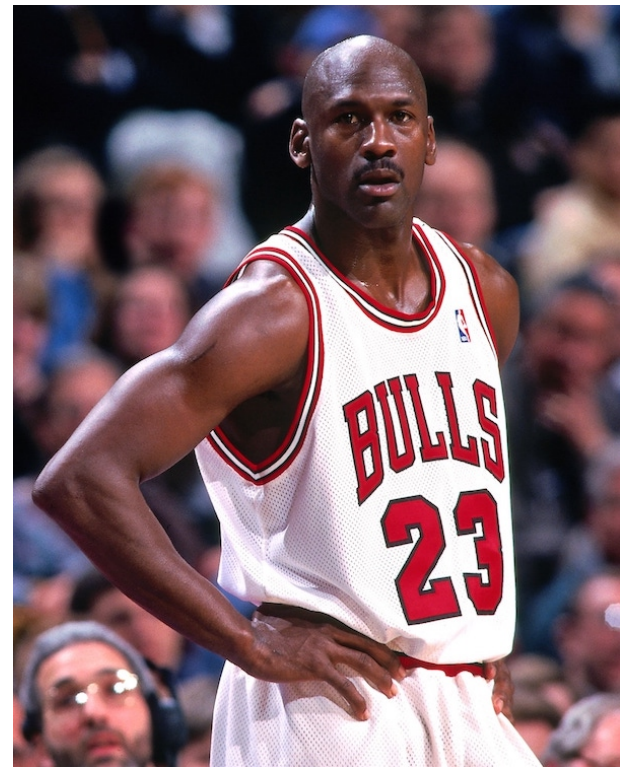
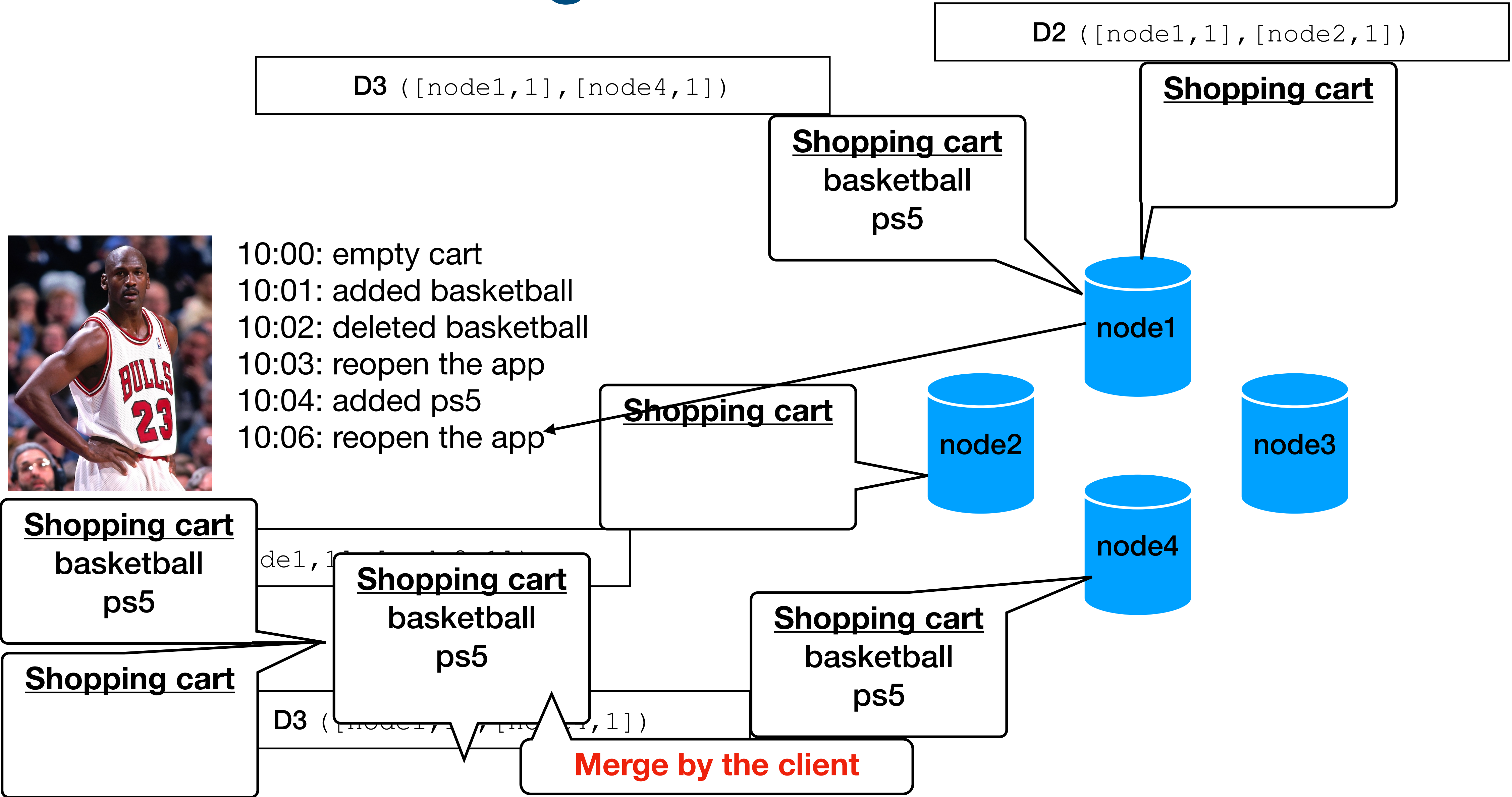
10:00: empty cart
10:01: added basketball
10:02: deleted basketball
10:03: reopen the app
10:04: added ps5
10:06: reopen the app



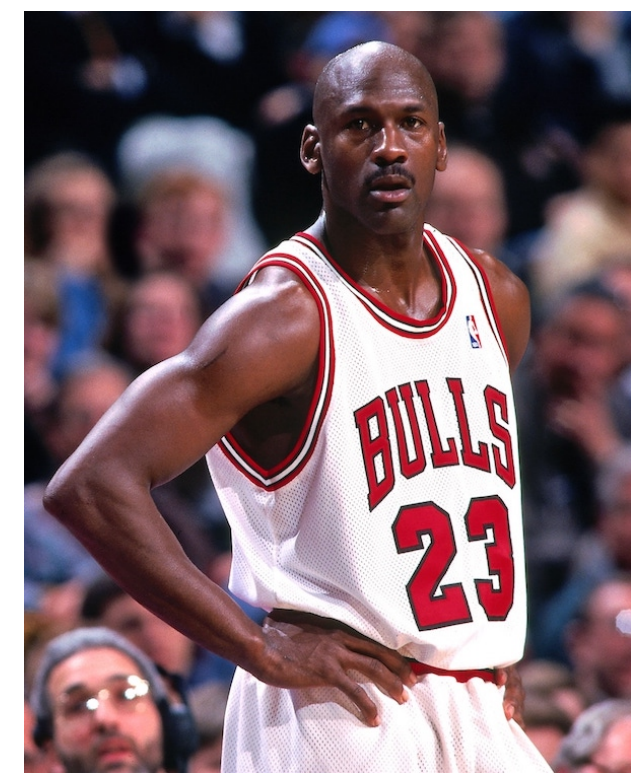
Data versioning - delete resurface



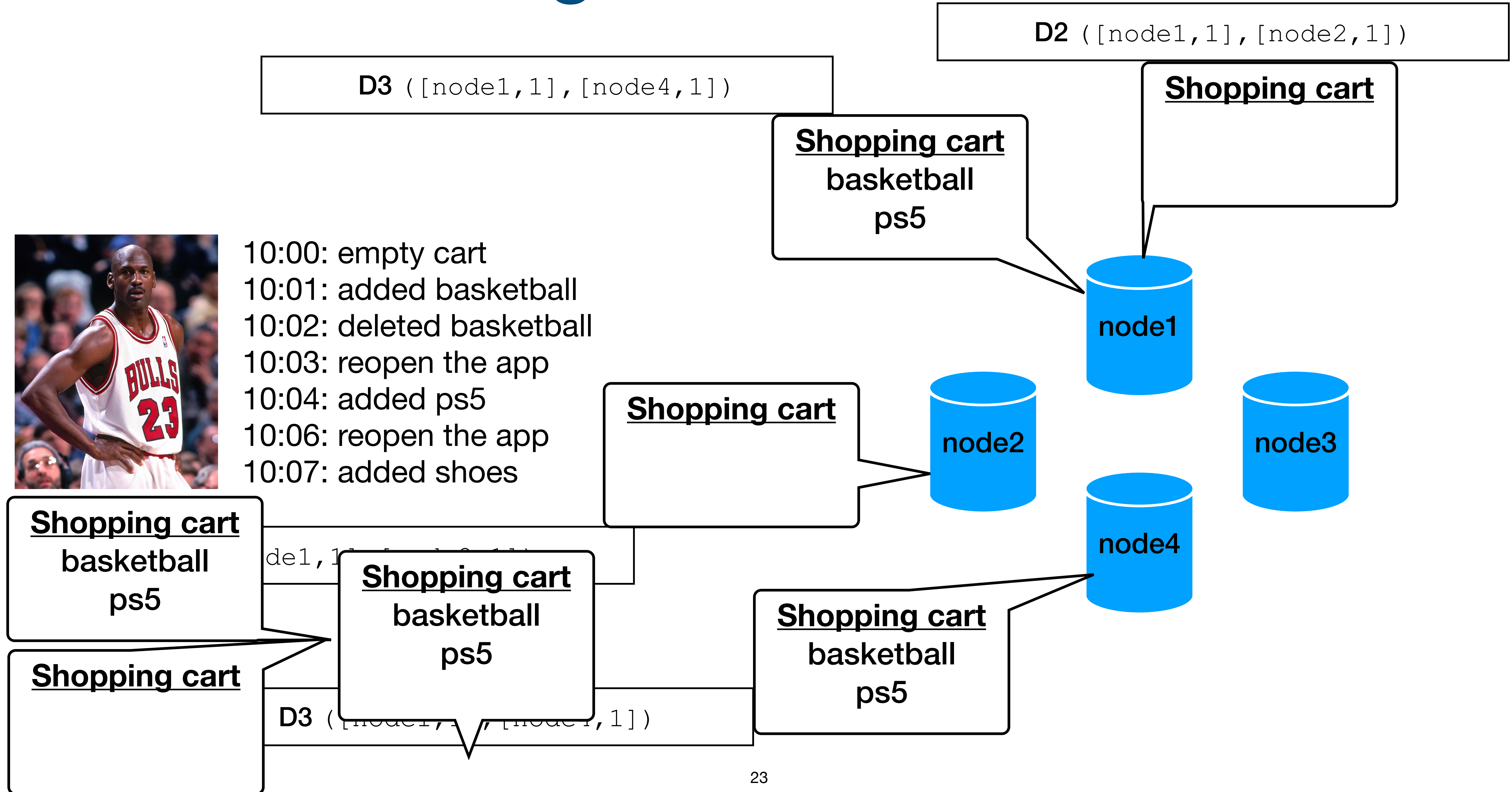
Data versioning - delete resurface



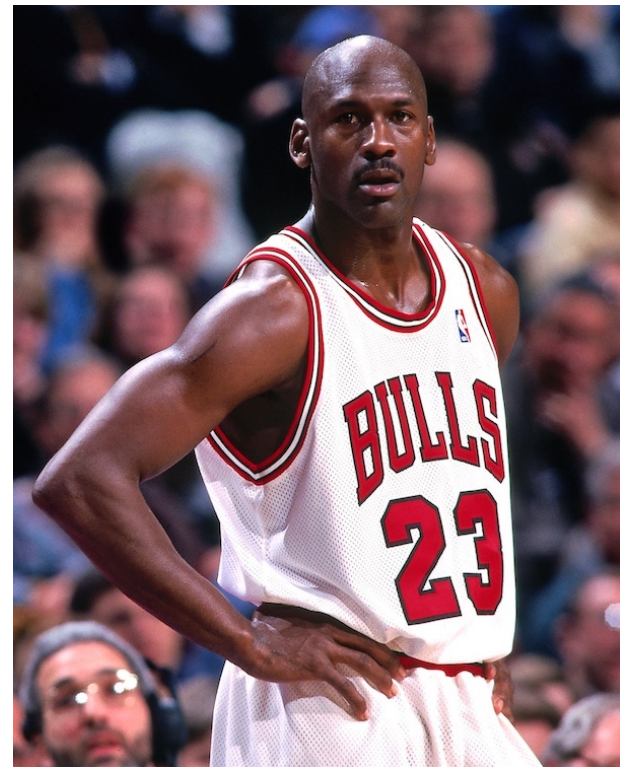
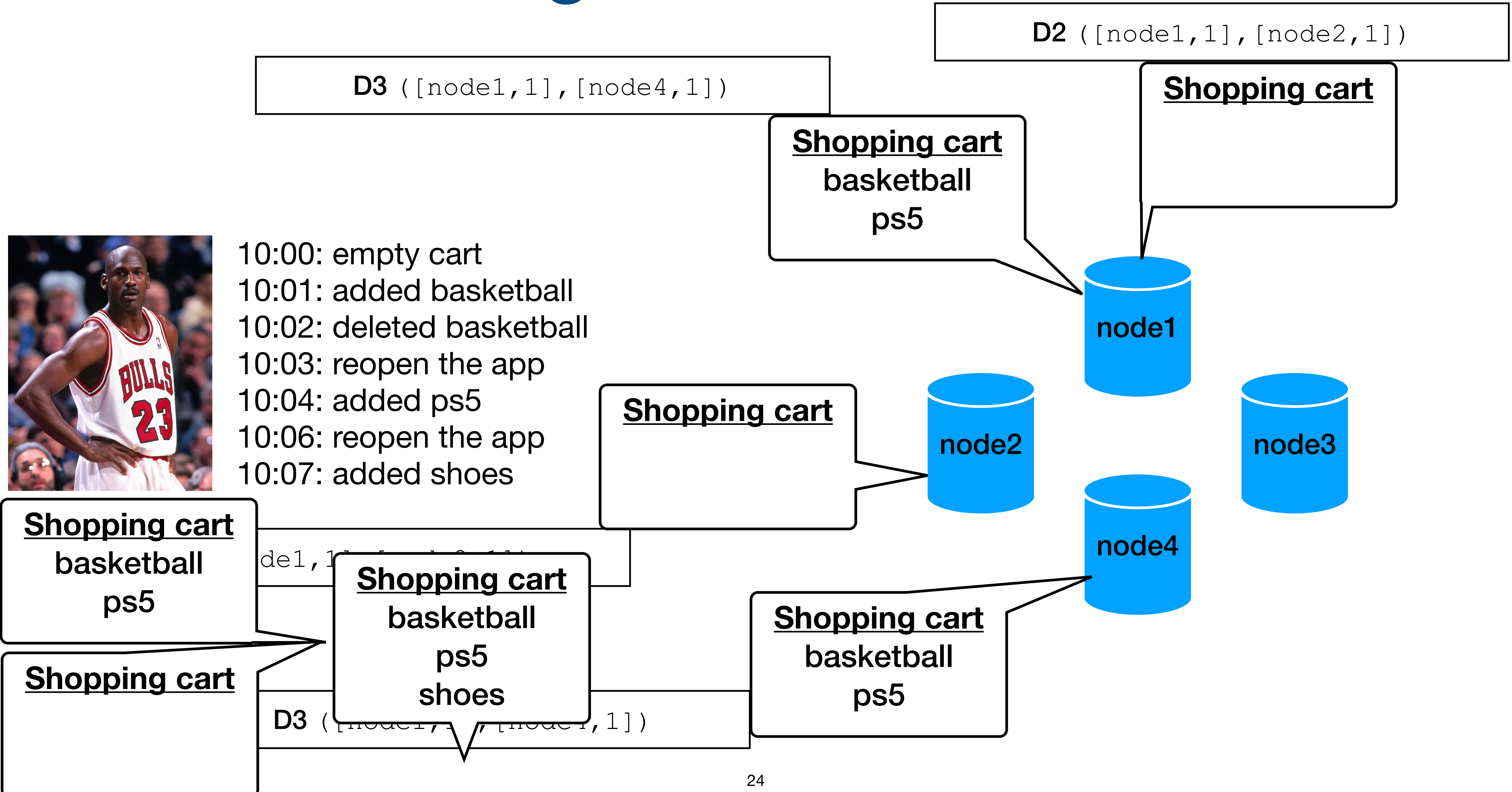
Data versioning - delete resurface



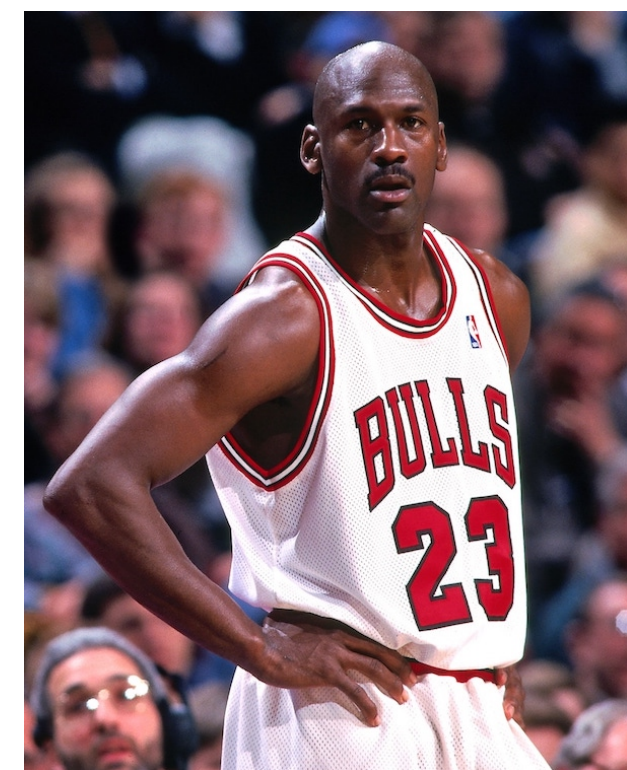
- 10:00: empty cart
- 10:01: added basketball
- 10:02: deleted basketball
- 10:03: reopen the app
- 10:04: added ps5
- 10:06: reopen the app
- 10:07: added shoes



Data versioning - delete resurface



Data versioning - delete resurface



- 10:00: empty cart
- 10:01: added basketball
- 10:02: deleted basketball
- 10:03: reopen the app
- 10:04: added ps5
- 10:06: reopen the app
- 10:07: added shoes

Shopping cart
basketball
ps5

Shopping cart

Shopping cart
basketball
ps5
shoes

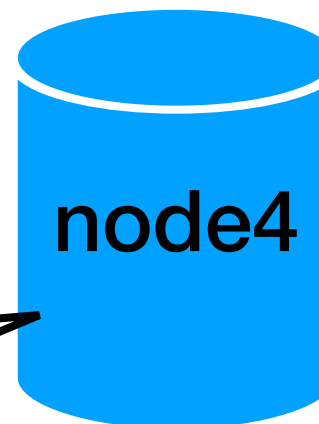
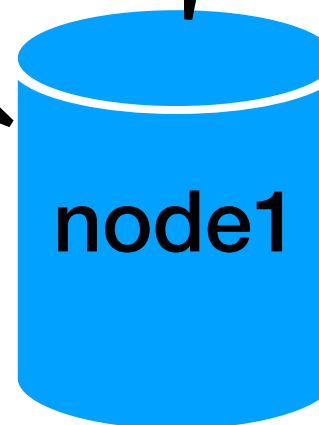
Shopping cart

Shopping cart
basketball
ps5

D2 ([node1, 1], [node2, 1])

D3 ([node1, 1], [node4, 1])

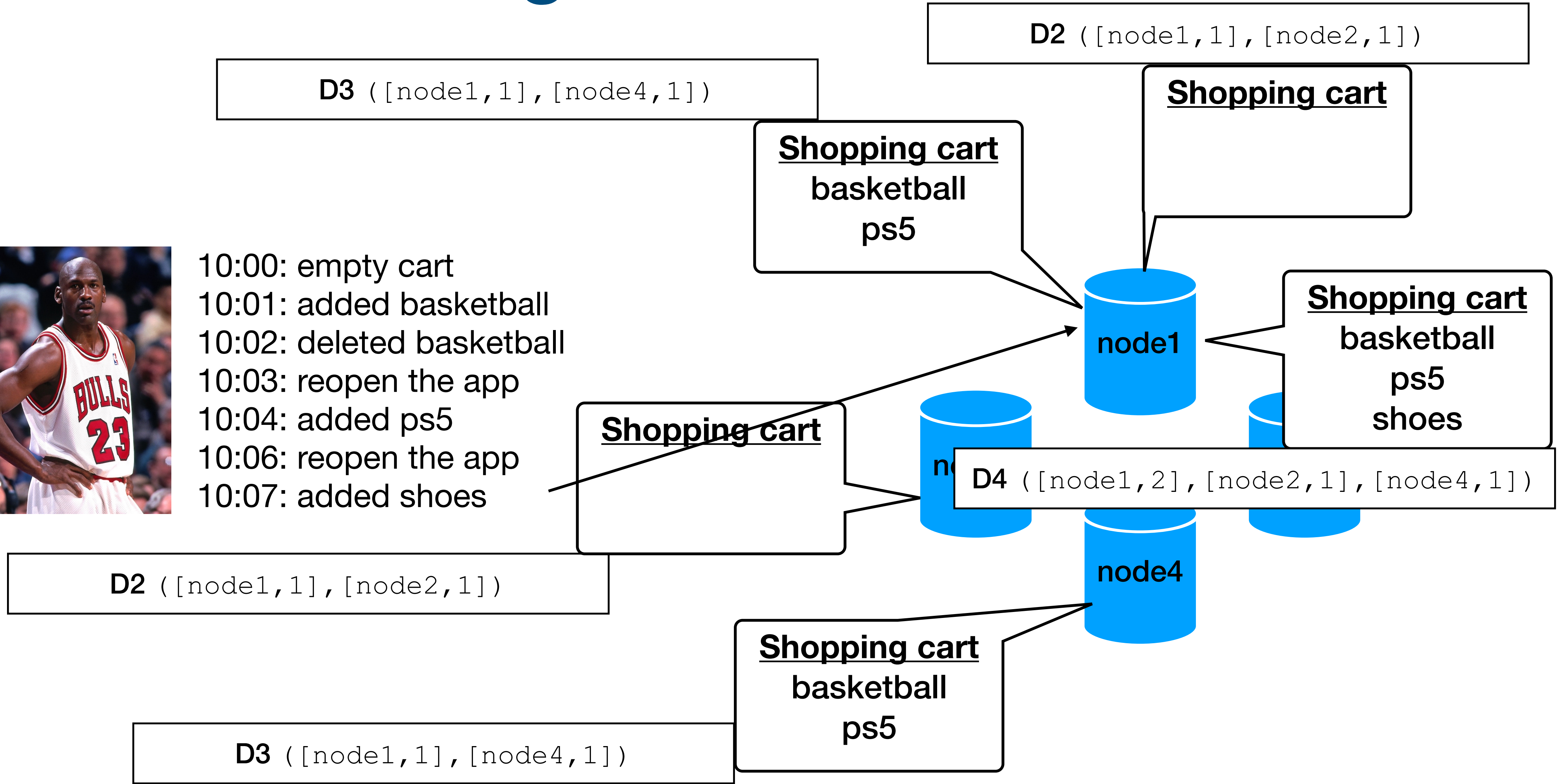
Shopping cart



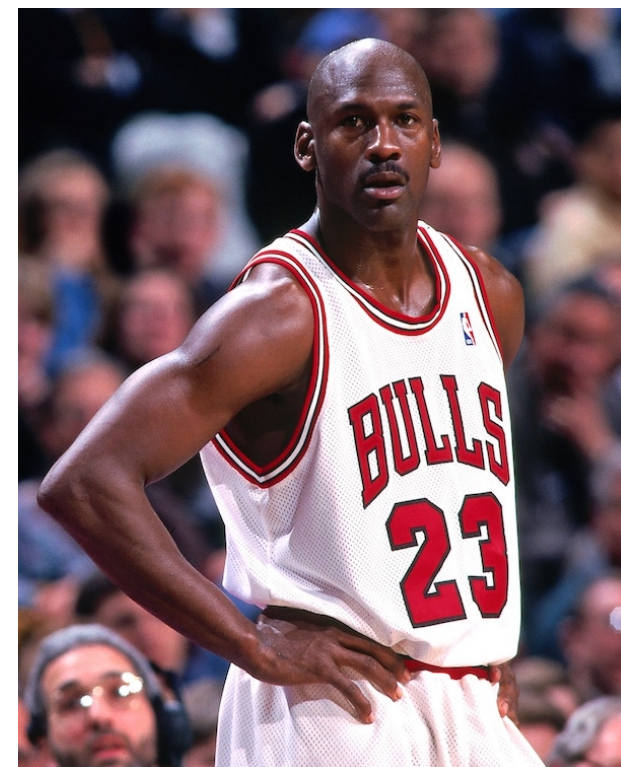
Data versioning - delete resurface



10:00: empty cart
 10:01: added basketball
 10:02: deleted basketball
 10:03: reopen the app
 10:04: added ps5
 10:06: reopen the app
 10:07: added shoes



Data versioning - delete resurface



10:00: empty cart
10:01: added basketball
10:02: deleted basketball
10:03: reopen the app
10:04: added ps5
10:06: reopen the app
10:07: added shoes

D4 ([node1, 2], [node2, 1], [node4, 1])

Shopping cart
basketball
ps5
shoes

Shopping cart

D2 ([node1, 1], [node2, 1])

D3 ([node1, 1], [node4, 1])

Shopping cart
basketball
ps5

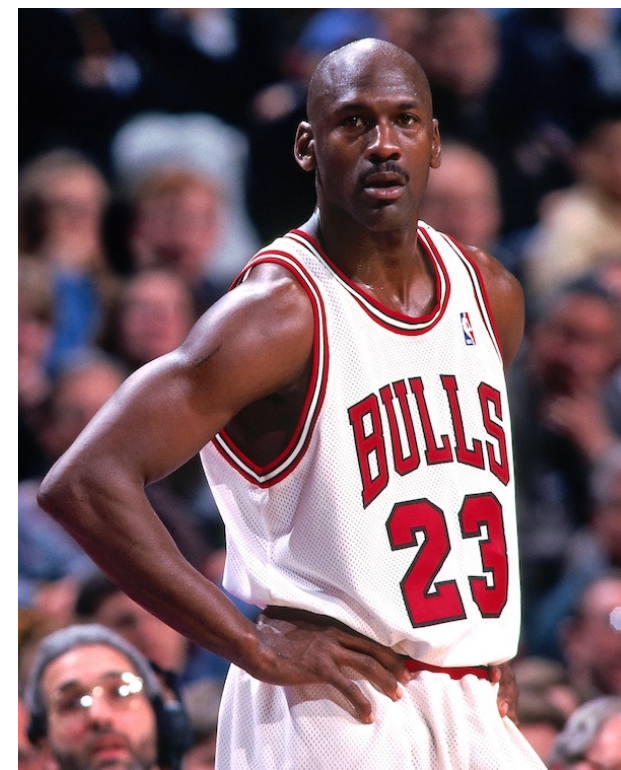
node1

node2

node3

node4

Data versioning - delete resurface



10:00: empty cart
10:01: added basketball
10:02: deleted basketball
10:03: reopen the app
10:04: added ps5
10:06: reopen the app
10:07: added shoes

D4 ([node1, 2], [node2, 1], [node4, 1])

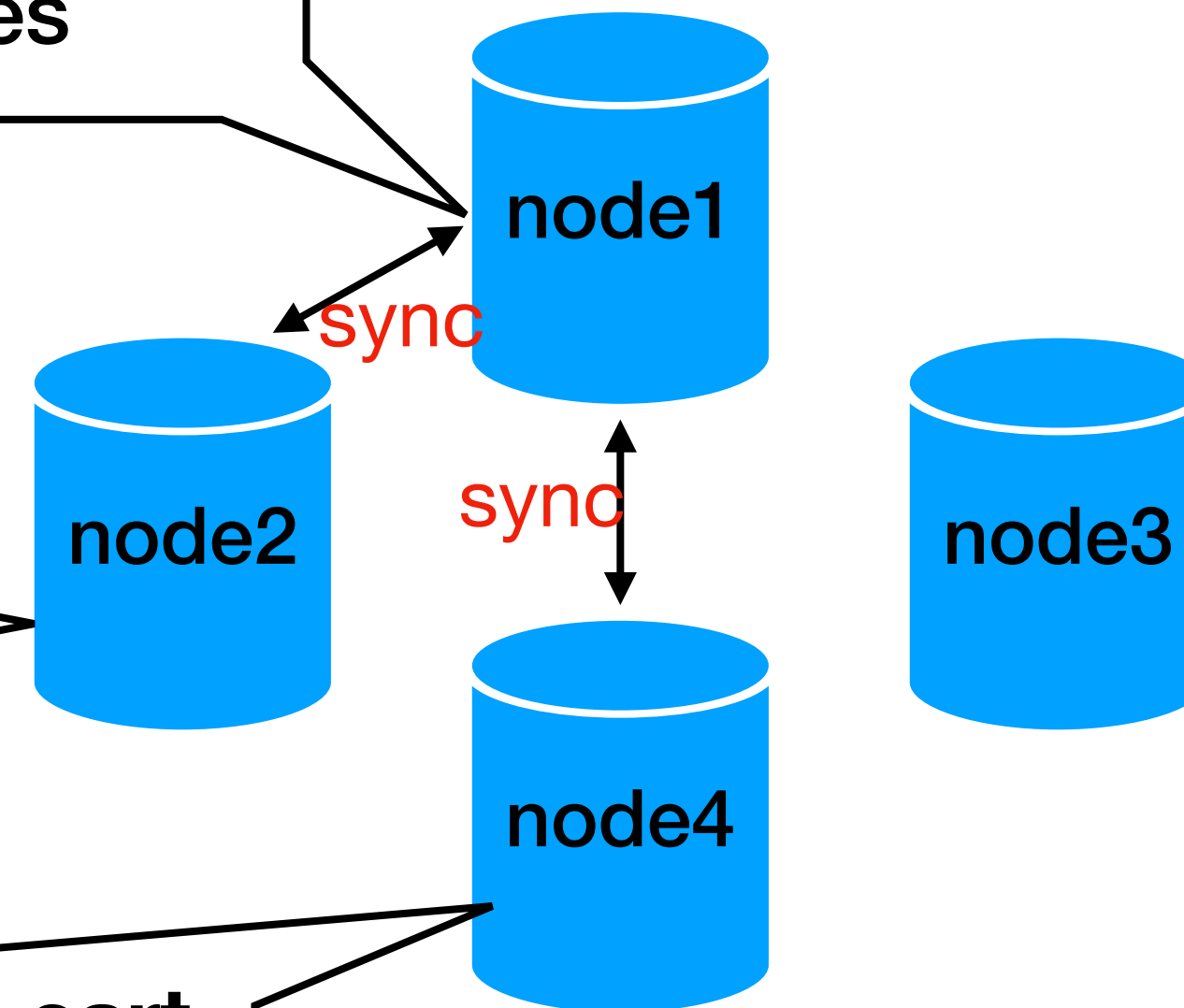
Shopping cart
basketball
ps5
shoes

Shopping cart

D2 ([node1, 1], [node2, 1])

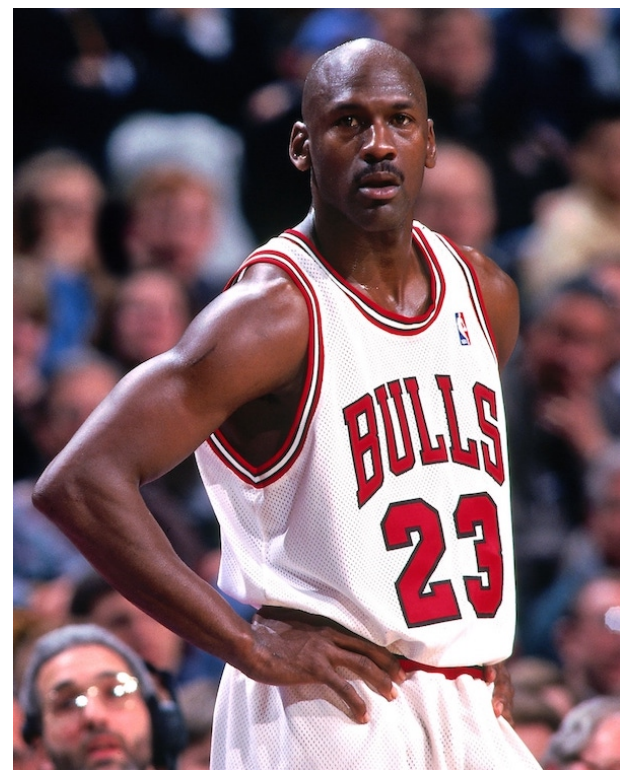
D3 ([node1, 1], [node4, 1])

Shopping cart
basketball
ps5



Data versioning - delete resurface

D4 ([node1, 2], [node2, 1], [node4, 1])



10:00: empty cart
10:01: added basketball
10:02: deleted basketball
10:03: reopen the app
10:04: added ps5
10:06: reopen the app
10:07: added shoes

Shopping cart
basketball
ps5
shoes

node1

Shopping cart
basketball
ps5
shoes

node2

node3

D4 ([node1, 2], [node2, 1], [node4, 1])

node4

D4 ([node1, 2], [node2, 1], [node4, 1])

Shopping cart
basketball
ps5
shoes

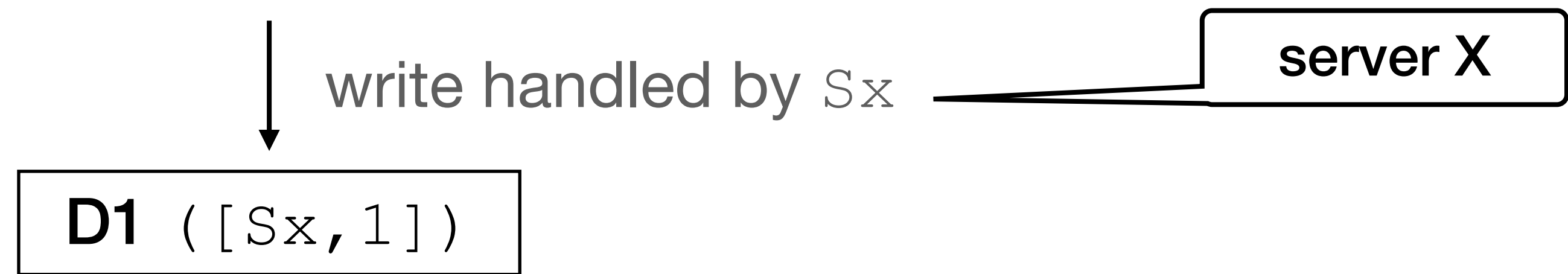
Dynamo - Extra

- Deleted item resurface example
- **Data versioning - example (paper)**

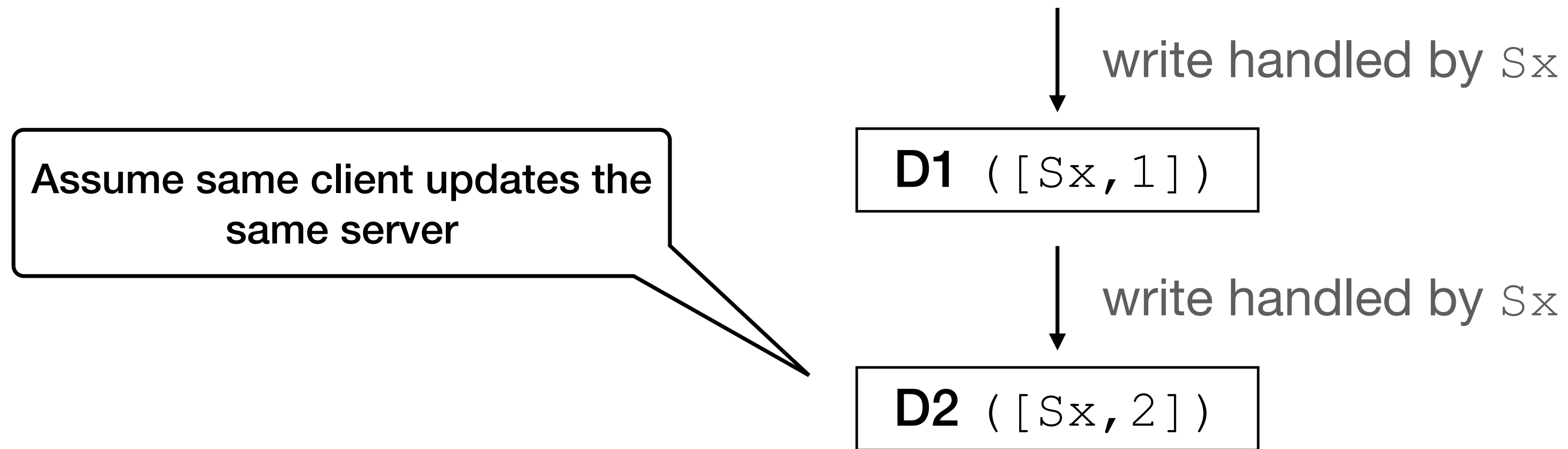
Data versioning - example (paper)

- If you want another example, on the next slides is the one from the original Dynamo paper

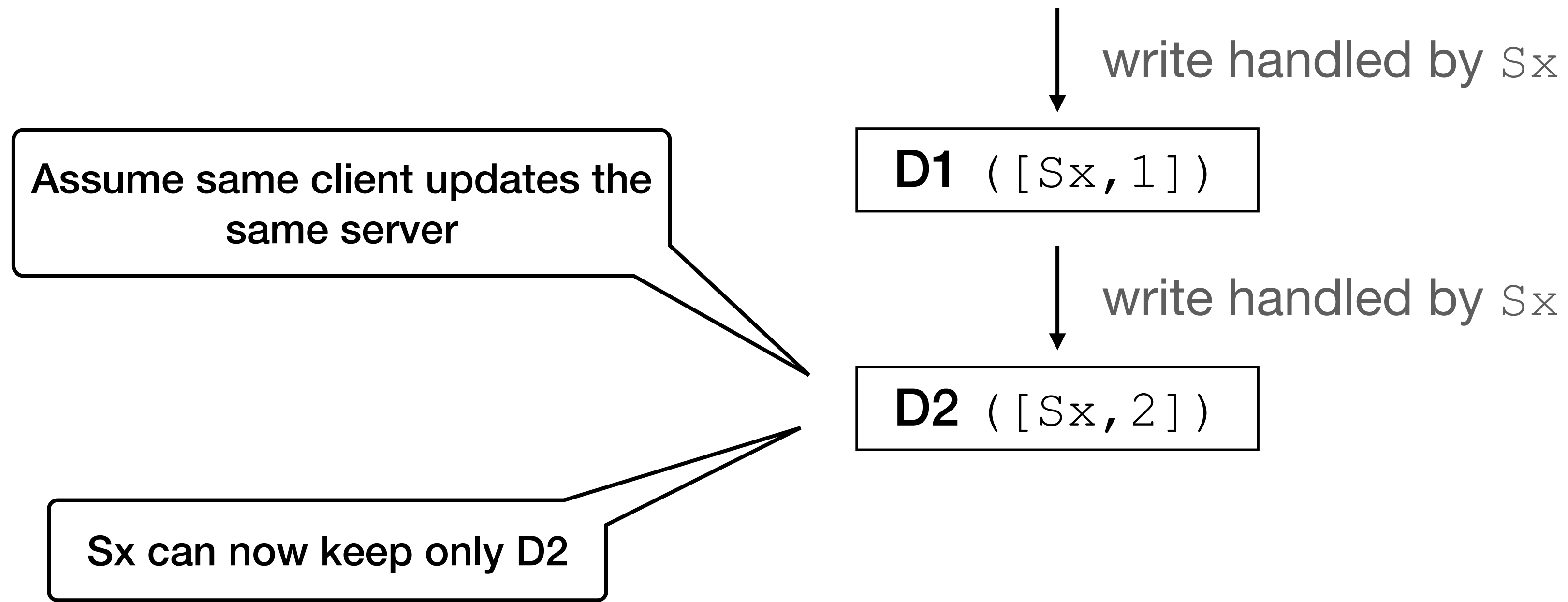
Data versioning - example (paper)



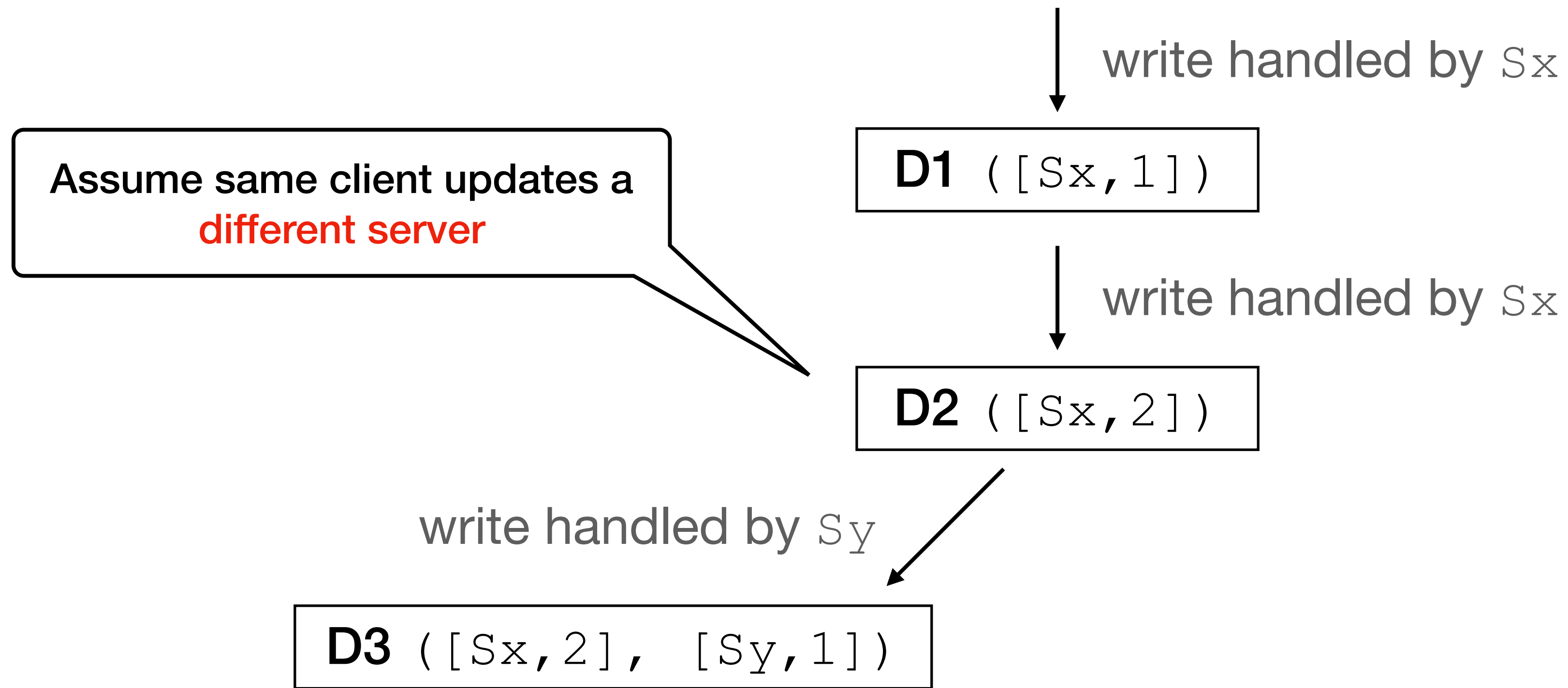
Data versioning - example (paper)



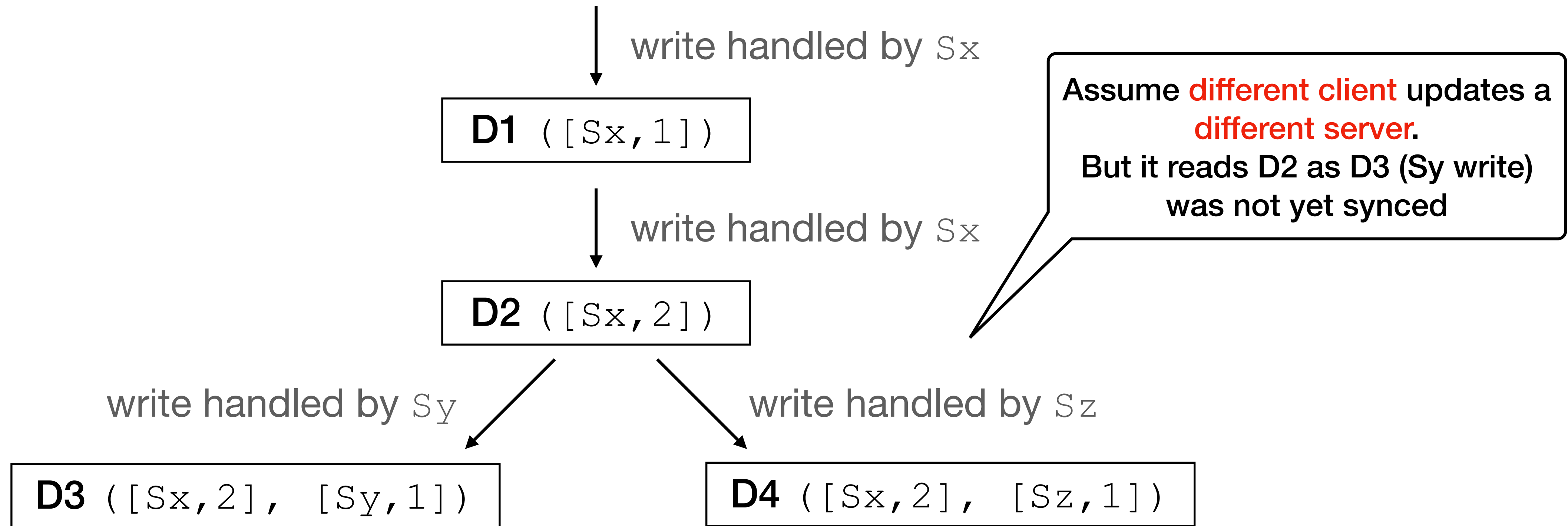
Data versioning - example (paper)



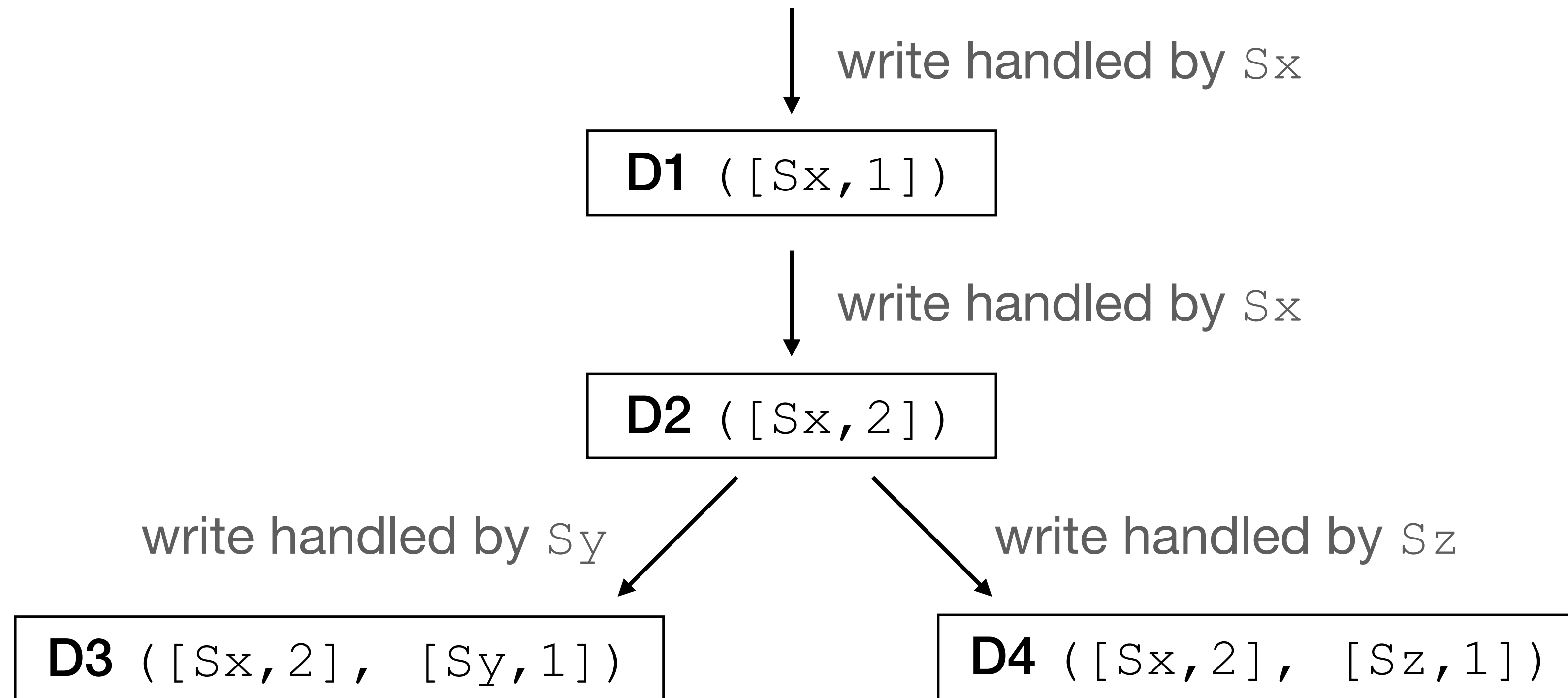
Data versioning - example (paper)



Data versioning - example (paper)



Data versioning - example (paper)



Assume S_y and S_z are getting synced. They can NOT merge D3 and D4 automatically. It will be done on the next update by the client

Data versioning - example (paper)

